



# STIC EIC 2100 Search Request Form

122115

Today's Date: 5/17/04

What date would you like to use to limit the search?

Priority Date:

~~5/17/04~~ 2/11/2002

Other:

Name Cam-Y Tuung

AU 2172 Examiner # 78158

Room # 4418 Phone (703) 605-1169

Serial # 100/074,941

Format for Search Results (Circle One):

PAPER DISK EMAIL

Where have you searched so far?

USP DWPI EPO JPO ACM IBM TDB

IEEE INSPEC SPI Other

Is this a "Fast & Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

estimating semantic correlation between each pair of images  
with bigram frequency, each bigram frequency based on  
multiple search sessions

— unigram frequency with image

STIC Searcher

Teresa Esterfeld

Phone

308-7775

Date picked up

5/17/04

11:00am

Date Completed

5/17/04

2:45pm





# STIC Search Results Feedback Form

**EIC 2100**

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Anne Hendrickson, EIC 2100 Team Leader  
308-7831, CPK2-4B40

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 2133

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

**Comments:**

Drop off or send completed forms to STIC/EIC2100 CPK2-4B40



Set	Items	Description
S1	7845677	ESTIMAT? OR DETERMIN? OR MEASURE? OR QUANTIF? OR ASSESS? OR BEST() GUESS OR DECID? OR RESOLV? OR ASCERTAIN OR INDICATE?
S2	4057	(SEMANTIC OR SYMBOLIC) (2N) (CORRELATION? OR RELATION? OR CONNECTION? OR INTERCONNECTION? OR LINK? OR LINKAGE? OR RELATIONSHIP?)
S3	79580	(TWO OR COUPLE OR PAIR OR DUO OR DUAL OR DOUBLE) (2N) (IMAG- E? ? OR REPRESENTATION? OR PLAN? ? OR DIAGRAM? ? OR SCHEMA OR SCHEMATIZATION OR BLUEPRINT? OR CHART? ? OR PICTURE? ? OR LAY- OUT)
S4	11	BIGRAM() FREQUENCY
S5	968	(SEARCH? OR QUEST? OR PURSU? OR SEEK? OR QUER?) (2N) SESSION?
S6	20	(MULTIPL? OR VARIOUS OR SEVERAL OR MANY OR PLURAL? OR NUME- ROUS) (2W) S5
S7	1	UNIGRAM() FREQUENCY
S8	0	S1 AND S2 AND S3 AND S5
S9	1001	S1 AND S2
S10	16	S9 AND S3
S11	0	S10 AND S6
S12	0	S10 AND S5
S13	0	S9 AND S6
S14	0	S9 AND S5
S15	28	S4 OR S7 OR S10
S16	28	S15 NOT PY>2002
S17	27	S16 NOT PD>20020211
S18	25	RD (unique items)
File	8: Ei	Compendex(R) 1970-2004/May W2 (c) 2004 Elsevier Eng. Info. Inc.
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File	95:	TEME-Technology & Management 1989-2004/May W1 (c) 2004 FIZ TECHNIK
File	583:	Gale Group Globalbase(TM) 1986-2002/Dec 13 (c) 2002 The Gale Group

18/5/1 (Item 1 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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06090664 E.I. No: EIP02287014676

**Title: Building a topic-dependent maximum entropy model for very large corpora**

Author: Wu, Jun; Khudanpur, Sanjeev

Corporate Source: Ctr. for Language and Speech Proc. The Johns Hopkins University, Baltimore, MD 21218, United States

Conference Title: 2002 IEEE International Conference on Acoustics, Speech, and Signal Processing

Conference Location: Orlando, FL, United States Conference Date: 20020513-20020517

Sponsor: IEEE

E.I. Conference No.: 59254

Source: ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings v 1 2002. p I/777-I/780 (IEEE cat n 02ch37334)

Publication Year: 2002

CODEN: IPRODJ ISSN: 0736-7791

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical); X; (Experimental)

Journal Announcement: 0207W3

Abstract: Maximum entropy (ME) techniques have been successfully used to combine different sources of linguistically meaningful constraints in language models. However, most of the current ME models can only be used for small corpora, since the computational load in training ME models for large corpora is unbearable. This problem is especially severe when non-local dependencies are considered. In this paper, we show how to train and use topic-dependent ME models efficiently for a very large corpus, Broadcast News (BN). The training time is greatly reduced by hierarchical training and divide-and-conquer approaches. The computation in using the model is also simplified by pre-normalizing the denominators of the ME model. We report new speech recognition results showing improvement with the topic model relative to the standard N-gram model for the Broadcast News task. 7 Refs.

Descriptors: \*Linguistics; Speech recognition; Mathematical models; Calculations; Probability; Iterative methods; Algorithms

Identifiers: Maximum entropy; Large corpora; Broadcast news; Hierarchical training; **Unigram frequency**; Generalized iterative scaling; Variant improved iterative scaling.

Classification Codes:

903.2 (Information Dissemination); 751.5 (Speech); 921.6 (Numerical Methods); 922.1 (Probability Theory)

903 (Information Science); 751 (Acoustics, Noise & Sound); 921 (Applied Mathematics); 922 (Statistical Methods)

90 (ENGINEERING, GENERAL); 75 (SOUND & ACOUSTICAL TECHNOLOGY); 92 (ENGINEERING MATHEMATICS)

18/5/2 (Item 2 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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06013265 E.I. No: EIP02096873773

**Title: Latent semantic kernels**

Author: Cristianini, Nello; Shawe-Taylor, John; Lodhi, Huma

Corporate Source: Department of Computer Science Royal Holloway University of London, Egham, Surrey TW20 OEX, United Kingdom

Source: Journal of Intelligent Information Systems v 18 n 2-3 March/May 2002. p 127-152

Publication Year: 2002

CODEN: JIISEH ISSN: 0925-9902

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical); X;

(Experimental)

Journal Announcement: 0203W1

Abstract: Kernel methods like support vector machines have successfully been used for text categorization. A standard choice of kernel function has been the inner product between the vector-space **representation** of two documents, in analogy with classical information retrieval (IR) approaches. Latent semantic indexing (LSI) has been successfully used for IR purposes as a technique for capturing **semantic relations** between terms and inserting them into the similarity **measure** between two documents. One of its main drawbacks, in IR, is its computational cost. In this paper we describe how the LSI approach can be implemented in a kernel-defined feature space. We provide experimental results demonstrating that the approach can significantly improve performance, and that it does not impair it. 27 Refs.

Descriptors: \*Semantics; Text processing; Information retrieval; Indexing (of information); Vectors

Identifiers: Latent semantic indexing (LSI); Support vector machines

Classification Codes:

903.2 (Information Dissemination); 723.5 (Computer Applications); 903.1 (Information Sources & Analysis); 921.1 (Algebra)

903 (Information Science); 723 (Computer Software, Data Handling & Applications); 921 (Applied Mathematics)

90 (ENGINEERING, GENERAL); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

18/5/3 (Item 3 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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04020633 E.I. No: EIP94122487492

Title: Probabilistic algorithm for segmenting non-kanji Japanese strings

Author: Teller, Virginia; Batchelder, Eleanor Olds

Corporate Source: City Univ of New York, New York, NY, USA

Conference Title: Proceedings of the 12th National Conference on Artificial Intelligence. Part 1 (of 2)

Conference Location: Seattle, WA, USA Conference Date: 19940731-19940804

Sponsor: American Association for Artificial Intelligence

E.I. Conference No.: 21453

Source: Proceedings of the National Conference on Artificial Intelligence v 1 1994. AAAI, Menlo Park, CA, USA. p 742-747

Publication Year: 1994

CODEN: PNAIEE

Language: English

Document Type: CA; (Conference Article) Treatment: A; (Applications); T; (Theoretical)

Journal Announcement: 9502W3

Abstract: We present an algorithm for segmenting unrestricted Japanese text that is able to detect up to 98% of the words in a corpus. The segmentation technique, which is simple and extremely fast, does not depend on a lexicon or any formal notion of what a word is in Japanese, and the training procedure does not require annotated text of any kind. Relying almost exclusively on character type information and a table of hiragana bigram frequencies, the algorithm makes a decision as to whether to create word boundaries or not. This method divides strings of Japanese characters into units that are computationally tractable and that can be justified on lexical and syntactic grounds as well. (Author abstract) 17 Refs.

Descriptors: \*Natural language processing systems; Algorithms; Probability; Knowledge based systems; Character recognition; Statistics; Learning systems

Identifiers: Probabilistic algorithms; Non Kanji Japanese strings; Segmentation; Lexicon; Hiragana **bigram frequency**; Tagging

Classification Codes:

723.4.1 (Expert Systems)

723.2 (Data Processing); 921.6 (Numerical Methods); 922.1 (Probability Theory); 723.4 (Artificial Intelligence); 922.2 (Mathematical Statistics)

723 (Computer Software); 921 (Applied Mathematics); 922 (Statistical Methods)

72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

18/5/5 (Item 2 from file: 35)  
DIALOG(R) File 35:Dissertation Abs Online  
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01892669 ORDER NO: AADAA-I3054649

**A framework for description, sharing and retrieval of semantic visual information**

Author: Park, Youngchoon

Degree: Ph.D.

Year: 2002

Corporate Source/Institution: Arizona State University (0010)

Adviser: Forouzan Goishani

Source: VOLUME 63/05-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 2461. 186 PAGES

Descriptors: COMPUTER SCIENCE

Descriptor Codes: 0984

ISBN: 0-493-69339-4

Multimedia data, in particular images and videos, need to be stored, classified and indexed based on the syntactic and semantic content. However, techniques for content-based image or video retrieval are not mature enough to detect and classify semantic objects completely.

For the purpose of semantic object-based visual information management; a novel visual content description unit, called a visual term; a new content description scheme of image objects with visual terms; and a novel contextual image matching method are proposed and retrieval effectiveness of the proposed matching technique is demonstrated.

A visual term, a symbolic representation of an atomic component of visual content (e.g., texture feature, shape feature and color property), is obtained from a set of training samples through various steps, including geometric primitive detection, color component extraction, texture property acquisition and hierarchical feature vector grouping. A collection of visual terms defines a quality dimension of an application and serves as a set of standardized vocabularies.

The visual term frequency (i.e., the visual term histogram) of an image is a natural way to represent and compare two images. In addition, a visual term occurrence vector (i.e., a binary vector in which each component indicates the occurrence of certain visual terms in an image) can be efficiently used the contextual retrieval of images. The proposed image representation allows seamless integration of heterogeneous features without requiring complex normalizations and weighting mechanisms and improves the performance of semantic or visual content classification.

A robust semantic object learning from the proposed content representation was developed for creating semantic object templates. A semantic model was obtained from quality samples and represented as a probability density function. For the purpose of accurate estimation of model parameters from the samples, a similarity-based visual term frequency estimation and weighting scheme has been used. The results of mining characterized the contextual relations of visual terms and generalized visual appearances of a semantic model. Contextual information that was extracted from the correlation analysis of visual term co-occurrences was added into the original visual data for accurate model classification. Automated image classification naturally permits mapping a low-level feature to a high-level semantic concept managed in an ontology and provides ways to navigate the database content based on semantic similarities and relations.

Experiments in this study have shown more than 11% improvement on categorization of 1100 images into 11 semantic categories, and approximately 7% improvement on context-independent (i.e., visual appearance-based image matching) image retrievals compared to other image classification and retrieval approaches.

18/5/6 (Item 3 from file: 35)  
DIALOG(R) File 35:Dissertation Abs Online  
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01611916 ORDER NO: NOT AVAILABLE FROM UNIVERSITY MICROFILMS INT'L.  
**A SEMANTIC TRANSFORMATION MODEL OF AUTOMATIC INDEXING (INDEXING, AMBIGUITY)**  
Author: ZHENG, FEN  
Degree: PH.D.  
Year: 1997  
Corporate Source/Institution: UNIVERSITY OF NEW SOUTH WALES (AUSTRALIA)  
(0423)  
Source: VOLUME 58/10-A OF DISSERTATION ABSTRACTS INTERNATIONAL.  
PAGE 3766.  
Descriptors: LIBRARY SCIENCE ; INFORMATION SCIENCE ; ARTIFICIAL  
INTELLIGENCE  
Descriptor Codes: 0399; 0723; 0800

SETRAN, a SEMantic TRANSformation model of automatic indexing, is designed to theoretically analyse the problems of ambiguity in subject representation on three layers: semantic interpretation, semantic presentation and pattern matching. Four major factors: **semantic value**, **semantic relationship**, syntactic **relationship** and **semantic field**, greatly affect automatic indexing by changing the different levels of text isolation and by posing a variety of ambiguity in subject representation.

In semantic interpretation, it is found that the syntactic representation of subjects can be achieved by obtaining conceptual categories from title parsing. The similarity of syntax between titles and subjects depends on the precision of terms and the coverage of facets in titles. The recognition of phrase structures is the key to title parsing. A parser using a syntactic analysis with semantic analysis can be more effective and less ambiguous. Terms, links and relations are fundamental to word significance.

In semantic **representation**, two issues are differentiated for retrieval purpose: (i) subject representation by text-based and by knowledge-based; and (ii) **semantic relationships** as linguistic relations and as factual relations. Approaches are suggested to control the problems of ambiguity in various relations such as synonymy, taxonomy, hierarchy, association, collocation, antonymy and homography. The incorporation of traditional thesauri as part of a knowledge base to support automatic subject representation is recommended.

Pattern matching discusses the matching between the natural language of a text and its systematic language in the deep structure of concepts. The smallest semantic units affect the capability of index terms by **determining** the possibility of combination between terms. Such combination may change the pattern values which **determine** pattern matching modes. The deep structure-based online version of pre-defined indexing languages can greatly improve the expression of systematic languages in automatic indexing. Subject representation models confine the relational symmetry in pattern matching. Subject indexing and subject classification are referred to in different subject representation models.

18/5/7 (Item 4 from file: 35)  
DIALOG(R) File 35:Dissertation Abs Online  
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01572565 ORDER NO: AAD97-28810  
**EXTERNALIZING A WORK DOMAIN STRUCTURE ON A HYPERTEXT INTERFACE USING AN ABSTRACTION HIERARCHY: SUPPORTING COMPLEX SEARCH TASKS AND PROBLEM-SOLVING ACTIVITIES**  
Author: XU, WEI  
Degree: PH.D.  
Year: 1996  
Corporate Source/Institution: MIAMI UNIVERSITY (0126)  
Directors: MARVIN J. DAINOFF; LEONARD S. MARK  
Source: VOLUME 58/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

Descriptors: PSYCHOLOGY, INDUSTRIAL ; ENGINEERING, INDUSTRIAL ; COMPUTER  
SCIENCE

Descriptor Codes: 0624; 0546; 0984

When searching in a complex hypertext application, users may experience navigation disorientation and cognitive overload. This study examined the relative effectiveness of a semantic representation for a hypertext interface and the **relationship** between **semantic** representations and complexity of search task. The goal is to design a more effective hypertext interface for complex documents in support of users' complex and problem-solving tasks.

The proposed interface was developed based on Rasmussen's abstraction hierarchy. A hypertext-based application with a complex document, called HyperErgo, was created as a research vehicle. The domain knowledge was ergonomic designs for computer workstation. Two interfaces were implemented based on **two semantic representations**: a classification hierarchy (CH) and the abstraction hierarchy (AH).

A 2  $\times$  3 factorial design (two interfaces  $\times$  three search tasks) was adopted for an experiment. The search tasks included a simple search task, a complex search task, and a problem-solving task. Twenty four college student were recruited. Four **measures** were taken: search time, time spent per node, deviation ratios, and subjective ratings.

The results supported research hypotheses. When performing the complex or problem-solving task, subjects using AH spent less time and experienced less navigation disorientation than those subjects using CH. As the task complexity increased, the advantage of AH over CH increased as **measured** by search time, time spent per node, and deviation ratios. No difference was found between the two interfaces for the simple task. Subjects using AH reported experiencing less navigation disorientation than those subjects using CH.

This study suggests: (1) For hypertext applications with complex documents, AH would be a more effective semantic representation of an interface to support complex and problem-solving tasks as compared to CH; (2) There is a **relationship** between **semantic** representations and complexity of search task, as supported by the interaction between the type of interface and the type of search task; (3) When choosing a semantic representation of a hypertext interface for a complex document, designers should consider users' search tasks and work domains as well as externalize domain constraints and functional relations of work domains on the interface to support users' complex and problem-solving tasks.

18/5/8 (Item 5 from file: 35)

DIALOG(R) File 35:Dissertation Abs Online

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01443906 ORDER NO: AADAA-IC436643

**STATISTICAL LANGUAGE PROCESSING-BASED ON SELF-ORGANISING WORD  
CLASSIFICATION**

Author: MCMAHON, JOHN GEORGE GAVIN

Degree: PH.D.

Year: 1994

Corporate Source/Institution: QUEEN'S UNIVERSITY OF BELFAST (NORTHERN  
IRELAND) (0725)Source: VOLUME 56/04-C OF DISSERTATION ABSTRACTS INTERNATIONAL.  
PAGE 1082. 208 PAGES

Descriptors: COMPUTER SCIENCE

Descriptor Codes: 0984

An automatic word classification system has been designed which processes word unigram and **bigram frequency** statistics extracted from a corpus of natural language utterances. The system implements a type of simulated annealing which employs an average class mutual information metric. Resulting classifications are hierarchical, allowing variable class granularity. Words are represented as structural tags: unique n-bit numbers the most significant bit-patterns of which incorporate class information.



Therefore, access to a structural tag immediately provides access to all classification levels for the corresponding word. The classification system has successfully revealed some of the structure of two natural languages, from the phonemic to the semantic level. The system has been favourably compared, directly and indirectly, with other word classification systems. Class based interpolated language models have been constructed to exploit the extra information supplied by structural tag classifications. Experiments measuring test ~~set~~ perplexity have shown that the new models significantly improve performance.

18/5/10 (Item 7 from file: 35)  
DIALOG(R) File 35:Dissertation Abs Online  
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1044580 ORDER NO: AADD--84522

**COLLATIVE SEMANTICS: A SEMANTICS FOR NATURAL LANGUAGE PROCESSING**

Author: FASS, DAN

Degree: PH.D.

Year: 1988

Corporate Source/Institution: UNIVERSITY OF ESSEX (UNITED KINGDOM) (0873

)  
Source: VOLUME 49/12-B OF DISSERTATION ABSTRACTS INTERNATIONAL.  
PAGE 5398. 400 PAGES

Descriptors: COMPUTER SCIENCE; LANGUAGE, LINGUISTICS

Descriptor Codes: 0984; 0290

Available from UMI in association with The British Library. Requires signed TDF.

A semantics for natural language processing called Collative Semantics (CS) is proposed. The main semantic phenomena it addresses are lexical ambiguity and **semantic relations**. Seven kinds of **semantic relation** are distinguished: literal, metonymic, metaphorical, anomalous, redundant, inconsistent, and novel relations.

CS contains four components: **two representations**, sense-frames and semantic vectors and two processes, collation and screening. Sense-frames are a knowledge representation scheme which represents individual word senses. In sense-frames, word senses also perform the functions of semantic primitives. Collation matches the sense-frames of two word senses and discriminates the **semantic relations** between them as a complex system of mappings between their sense-frames. Semantic vectors represent the systems of mappings produced by collation and hence the **semantic relations** encoded in those mappings (except for metonymic relations). Screening chooses between two semantic vectors by applying rank orderings among **semantic relations** and a **measure** of conceptual similarity, thereby **resolving** lexical ambiguity.

The foundations of CS rest on three main theoretical ideas. The first is a linguistic view of knowledge representation which, by imposing restrictions on natural language and relaxing controls on knowledge representation, reaches a point where the semantic primitives of a knowledge representation function like senses of words from natural language, as in sense-frames.

The second idea is a distinction made between knowledge and coherence; the third is a large-scale framework consisting of four constructs, **two representations** and **two processes**, in which coherence plays a major organising role. The four components of CS are instances of these four constructs. The framework distinguishes between the representation of knowledge and coherence. Semantic vectors are an example of the latter.

CS has been implemented in a computer program called meta5 which analyses sentences, discriminates the seven kinds of **semantic relation** between pairs of word senses in those sentences, and **resolves** any lexical ambiguity.

18/5/13 (Item 1 from file: 202)  
DIALOG(R) File 202:Info. Sci. & Tech. Abs.  
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3101754

**Effect of animation in enhancing descriptive and procedural texts in a multimedia learning environment.**

Author(s): Large, A; Breuleux, A; Renaud, A

Corporate Source: McGill Univ., Montreal, Quebec

Journal of the American Society for Information Science vol. 47, no. 6  
, pages 437-448

Publication Date: Jun 1996

ISSN: 0002-8231

Language: English

Document Type: Journal Article

Record Type: Abstract

Journal Announcement: 3100

This article reports the third and final phase of a research project to investigate the role of animation in enhancing recall and comprehension of text by grade 6 primary school students. This phase had three objectives: To **determine** whether a **complex** descriptive text is enhanced by animation so long as the animation exhibits close **semantic links** an animation with a text so as to increase comprehension of that text; and to investigate the relationship between students' spatial skills and their ability to recall and comprehend a text enhanced with still images and animation. A descriptive text on the structure and functions of the heart from Compton's Multimedia Encyclopedia was linked to a still **image** and **two** animation sequences developed by the research team and which were both more extensive and more completely integrated semantically with the text than in the original Compton's version. Four presentation conditions were produced: Text; text and still image; text, still image, and animations, and captions. Students were tested for spatial ability and divided into two groups: Low and high spatial ability. Their comprehension was tested using three tasks: Written recall, multiple choice questions, and problem-solving. Animation improved significantly only the problem-solving task, but this was the **measure** which involved the highest level of cognitive effort. Students with high spatial ability in general performed better than students with low spatial ability regardless of presentation condition, and in the case of propositional and thematic recall, this was significant.

Descriptors: Animation; Educational technology; Elementary schools;  
Learning

Classification Codes and Description: 3.05 (Instruction); 2.06  
(Psychological Aspects, Cognition); 5.08 (Graphics and Displays)

Main Heading: Information Generation and Promulgation; Research Methods;  
Information Processing and Control

18/5/14 (Item 2 from file 202)

DIALOG(R) File 202:Info. Sci. & Tech. Abs.

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0800564

**Handling of varied data bases in an information center environment.**

Book Title: 1971 July 23. Research Institute, Illinois Institute Of Technology, Chicago. 24 P. 0 Ref. Edrs: Ed-067 143; Hc \$3.29, Mf \$0.65. Presented At The Conference On Computers In Chemical Education And Research, Northern Illinois University, Dekalb, Illinois.

Author(s): Williams, Martha E

Publication Date: 1971

Language: English

Document Type: Book Chapter

Record Type: Abstract

Journal Announcement: 0800

Information centers exists to provide information from machine-readable data base to users in industry, universities, and other organizations. The computer search center of the iit research institute was designed with a

number of variables and uncertainties before it. In this paper, the author discusses how the center was designed to enable it to accommodate the many variables it would face in providing different services to diverse users. The system design is discussed in terms of the unpredictable future and in terms of the user to be served. User aids that were developed (search manual, truncation guide, frequency lists, key letter in context (klic) index and **bigram frequency** list), and communication with the user are discussed. The reasons for using a selective dissemination of information service (sdi) are presented.

Classification Codes and Description: 7.01 (Planning, Administration)  
Main Heading: Libraries and Information Services

18/5/15 (Item 1 from file: 2)  
DIALOG(R) File 2:INSPEC  
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7855519 INSPEC Abstract Number: C2004-03-7330-119

**Title: Automated enhancement of description logic-defined terminologies to facilitate mapping to ICD9-CM**

Author(s): Elkin, P.L.; Brown, S.H.

Author Affiliation: Dept. of Internal Medicine, Mayo Med. Sch., Rochester, MN, USA

Journal: Journal of Biomedical Informatics vol.35, no.5-6 p.281-8

Publisher: Academic Press,

Publication Date: Oct.-Dec. 2002 Country of Publication: USA

CODEN: JBIOBL ISSN: 1532-0464

SICI: 1532-0464(200210/12)35:5/6L:281:AEDL;1-4

Material Identity Number: B289-2003-003

U.S. Copyright Clearance Center Code: 1532-0464/2002/\$35.00

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: Compositional (post-coordinated) terminologies are one potential solution to the problem of content completeness. However, they have the potential to render data incomparable. For computers to **determine** that compositional expressions are comparable, the relations between the composed components that are understood implicitly by human readers must be represented explicitly for computer manipulation. We discuss a technique for discovering and formalizing the implicit **semantic relationships** in two vocabularies: the International Classification of Disease Version 9 Clinical Modification (ICD9-CM), and SNOMED-Reference Terminology (SNOMED-RT). The results of this technique are used to augment the existing SNOMED-RT relation ontology (K.A. Spackman et al., 1998), which is a necessary step in automated concept mapping between systems. The reference terminology must contain all the semantics implicit in the classification in order to map concepts between the **two representations**. We also provide an explicit representation of the implied semantics of ICD9-CM. This tabulation will be useful for other knowledge engineering efforts involving ICD9-CM. (26 Refs)

Subfile: C

Descriptors: automation; diseases; knowledge engineering; medical computing; medical information systems; nomenclature; semantic networks

Identifiers: description logic; ICD9-CM; compositional terminologies; post-coordinated terminologies; computer manipulation; **semantic relationships**; SNOMED-reference terminology; medical informatics; controlled health terminologies; knowledge engineering efforts

Class Codes: C7330 (Biology and medical computing); C7140 (Medical administration); C4210L (Formal languages and computational linguistics); C6170K (Knowledge engineering techniques)

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18/5/16 (Item 2 from file: 2)  
DIALOG(R) File 2:INSPEC  
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7437747 INSPEC Abstract Number: B2002-12-6130E-053, C2002-12-1250C-040

**Title: Effectiveness of word string language models on noisy broadcast news speech recognition**

Author(s): Takagi, K.; Oguro, R.; Ozeki, K.

Author Affiliation: Univ. of Electro-Commun., Chofu, Japan

Journal: IEICE Transactions on Information and Systems vol.E85-D, no.7 p.1130-7

Publisher: Inst. Electron. Inf. & Commun. Eng,

Publication Date: July 2002 Country of Publication: Japan

CODEN: ITISEF ISSN: 0916-8532

SICI: 0916-8532(200207)E85D:7L:1130:EWSL;1-C

Material Identity Number: P713-2002-009

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T); Experimental (X)

**Abstract:** Experiments were conducted to examine an approach from language modeling side to improving noisy speech recognition performance. By adopting appropriate word strings as new units of processing, speech recognition performance was improved by acoustic effects as well as by test-set perplexity reduction. Three kinds of word string language models were evaluated, whose additional lexical entries were selected based on combinations of part of speech information, word length, occurrence frequency, and log likelihood ratio of the hypotheses about the **bigram frequency**. All of the three word string models reduced errors in broadcast news speech recognition, and also the lowered test-set perplexity. The word string model based on log likelihood ratio exhibited the best improvement for noisy speech recognition, by which deletion errors were reduced by 26%, substitution errors by 9.3%, and insertion errors by 13%, in the experiments using the speaker-dependent, noise-adapted triphone. Effectiveness of word string models on error reduction was more prominent for noisy speech than for studio-clean speech. (23 Refs)

Subfile: B C

Descriptors: error analysis; speech recognition; string matching

Identifiers: word string; language model; test-set perplexity reduction; log likelihood ratio; error reduction; robustness; broadcast news speech; noisy speech recognition

Class Codes: B6130E (Speech recognition and synthesis); B0290B (Error analysis in numerical methods); C1250C (Speech recognition); C5260S (Speech processing techniques); C4110 (Error analysis in numerical methods)

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18/5/19 (Item 5 from file: 2)

DIALOG(R) File 2:INSPEC

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6026049 INSPEC Abstract Number: C9810-6170-017

**Title: The application of fuzzy logic to model semantic variables in a hybrid model for classification expert system**

Author(s): Vlademonte da Rosa, S.; Beckenkamp, F.G.; Hoppen, N.

Author Affiliation: Comput. Sci. Inst., Pontifical Catholic Univ. of Rio Grande do Sul, Porto Alegre, Brazil

Conference Title: ISFL'97. Second International ICSC Symposium on Fuzzy Logic and Applications p.301-7

Editor(s): Steele, N.

Publisher: ICSC Academic Press, Zurich, Switzerland

Publication Date: 1997 Country of Publication: Switzerland 385 pp.

ISBN: 3 906454 03 7 Material Identity Number: XX97-00552

Conference Title: Proceedings of Second International ICSC Symposium on Fuzzy Logic and Applications

Conference Date: 12-14 Feb. 1997 Conference Location: Zurich, Switzerland

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

**Abstract:** This paper describes the application of fuzzy logic concepts to model semantic variables in the knowledge engineering phase, during a hybrid expert system application. The fuzzy logic is a suitable approach to handle imprecise concepts, such as predicates, **quantifiers** and predicate

modifiers. The system developed named SECOX-HI, is a hybrid expert system model concerning the applications in classification problems. Hybrid architectures for expert systems (ES) employ two knowledge representation mechanisms, the symbolic and connectionist approaches. The hybrid expert system was applied in a decision task, the classification of operation states of the floodgates movements from a reservoir, in a hydroelectric power station. In the role of to determine the occurrence of the operation states, several information must be considered as well the semantic predicates associated to them. These predicates are quantifiers such as high, medium and low. The fuzzy logic concepts was used to model the fuzzy variables of the application domain and to establish a confidence degree of each variable. This confidence degree perform the input layer of the neural network model. The paper presents the description of the problem domain, the hybrid expert system model and the determination of the fuzzy sets and their membership functions. (17-Refs)

Subfile: C

Descriptors: expert systems; fuzzy logic; fuzzy set theory; hydroelectric power; power station control

Identifiers: fuzzy logic; semantic variables; classification expert system; knowledge engineering; hybrid expert system; hydroelectric power station; fuzzy sets; membership functions; expert system; decision task; SECOX-HI

Class Codes: C6170 (Expert systems); C3340H (Control of electric power systems); C7410B (Power engineering computing); C4210 (Formal logic); C7420 (Control engineering computing)

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18/5/20 (Item 6 from file: 2)

DIALOG(R) File 2:INSPEC

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5326099 INSPEC Abstract Number: C9609-4210L-007

Title: Improving statistical language model performance with automatically generated word hierarchies

Author(s): McMahon, J.G.; Smith, F.J.

Author Affiliation: Dept. of Comput. Sci., Queen's Univ., Belfast, UK

Journal: Computational Linguistics vol.22, no.2 p.217-47

Publisher: MIT Press for Assoc. Comput. Linguistics,

Publication Date: June 1996 Country of Publication: USA

CODEN: CLINEE ISSN: 0891-2017

SICI: 0891-2017(199606)22:2L;217:ISLM;1-T

Material Identity Number: H955-96003

U.S. Copyright Clearance Center Code: 0891-2017/96/\$3.00

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P); Theoretical (T)

Abstract: An automatic word-classification system has been designed that uses word unigram and bigram frequency statistics to implement a binary top-down form of word clustering and employs an average class mutual information metric. Words are represented as structural tags-n-bit numbers the most significant bit-patterns of which incorporate class information. The classification system has revealed some of the lexical structure of English, as well as some phonemic and semantic structure. The system has been compared-directly and indirectly-with other recent word-classification systems. We see our classification as a means towards the end of constructing multilevel class-based interpolated language models. We have built some of these models and carried out experiments that show a 7% drop in test set perplexity compared to a standard interpolated trigram language model. (62 Refs)

Subfile: C

Descriptors: computational linguistics; natural languages

Identifiers: statistical language model performance; automatically generated word hierarchies; automatic word-classification system; word unigram; bigram frequency statistics; word clustering; average class mutual information metric; n-bit numbers; lexical structure; English; semantic structure; phonemic structure; multilevel class-based interpolated language models; test set perplexity; interpolated trigram language model

Class Codes: C4210L (Formal languages and computational linguistics);  
C6180N (Natural language processing)  
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18/5/21 (Item 7 from file: 2)  
DIALOG(R) File 2:INSPEC  
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5300287 INSPEC Abstract Number: C9608-7810C-003

**Title: Effect of animation in enhancing descriptive and procedural texts in a multimedia learning environment**

Author(s): Large, A.; Beheshti, J.; Breuleux, A.; Renaud, A.

Author Affiliation: Graduate Sch. of Libr. & Inf. Studies, McGill Univ., Montreal, Que., Canada

Journal: Journal of the American Society for Information Science  
vol.47, no.6 p.437-48

Publisher: Wiley for ASIS,

Publication Date: June 1996 Country of Publication: USA

CODEN: AISJB6 ISSN: 0002-8231

SICI: 0002-8231(199606)47:6L:437:EAED;1-2

Material Identity Number: J141-96006

U.S. Copyright Clearance Center Code: 0002-8231/96/060437-12

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

**Abstract:** The article reports on a research project to investigate the role of animation in enhancing recall and comprehension of text by grade 6 primary school students. The project had three objectives: to **determine** whether a complex descriptive text is enhanced by animation so long as the animation exhibits close **semantic links** with the text; to explore the importance of captions in linking an animation with a text so as to increase comprehension of that text; and to investigate the relationship between students' spatial skills and their ability to recall and comprehend a text enhanced with still images and animation. A descriptive text on the structure and functions of the heart from Compton's Multimedia Encyclopedia was linked to a still **image** and **two** animation sequences developed by the research team. Four presentation conditions were produced: text; text and still image; text, still image, and animations; and text, still image, animations, and captions. Students were tested for spatial ability and divided into two groups: low and high spatial ability. Comprehension was tested using three tasks: written recall, multiple choice questions, and problem solving. Animation improved significantly only the problem solving task, but this was the **measure** which involved the highest level of cognitive effort. Students with high spatial ability in general performed better than students with low spatial ability regardless of presentation condition, and in the case of propositional and thematic recall, this was significant. The addition of captions to the animation sequences had no significant effect but this may be because the sequences also included labels which could have obviated the need for captions. (12 Refs)

Subfile: C

Descriptors: biology computing; computer animation; courseware; human factors; multimedia computing; teaching; user interfaces

Identifiers: animation; procedural texts; descriptive texts; multimedia learning environment; research project; text comprehension; primary school students; complex descriptive text; **semantic links**; captions; spatial skills; still images; descriptive text; still image; presentation conditions; spatial ability; written recall; multiple choice questions; problem solving; cognitive effort; thematic recall

Class Codes: C7810C (Computer-aided instruction); C6130M (Multimedia); C6180 (User interfaces); C7330 (Biology and medical computing); C6130B (Graphics techniques); C6160S (Spatial and pictorial databases)

Copyright 1996, IEE

18/5/22 (Item 8 from file: 2)  
DIALOG(R) File 2:INSPEC  
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5014241 INSPEC Abstract Number: C9509-6160S-015

**Title: Design and evaluation of algorithms for image retrieval by spatial similarity**

Author(s): Gudivada, V.N.; Raghavan, V.V.

Author Affiliation: Dept. of Comput. Sci., Ohio Univ., Athens, OH, USA

Journal: ACM Transactions on Information Systems vol.13, no.2 p. 115-44

Publication Date: April 1995 Country of Publication: USA

CODEN: ATISET ISSN: 1046-8188

U.S. Copyright Clearance Center Code: 1046-8188/95/0400-0115\$03.50

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

**Abstract:** Similarity-based retrieval of images is an important task in many image database applications. A major class of users' requests requires retrieving those images in the database that are spatially similar to the query image. We propose an algorithm for computing the spatial similarity between two symbolic images. A symbolic image is a logical representation of the original image where the image objects are uniquely labeled with symbolic names. Spatial relationships in a symbolic image are represented as edges in a weighted graph referred to as spatial-orientation graph. Spatial similarity is then quantified in terms of the number of as well as the extent to which, the edges of the spatial-orientation graph of the database image conform to the corresponding edges of the spatial-orientation graph of the query image. The proposed algorithm is robust in the sense that it can deal with translation, scale, and rotational variances in images. The algorithm has quadratic time complexity in terms of the total number of objects in both the database and query images. We also introduce the idea of quantifying a system's retrieval quality by having an expert specify the expected rank ordering with respect to each query for a set of test queries. This enables us to assess the quality of algorithms comprehensively for retrieval in image databases. The characteristics of the proposed algorithm are compared with those of the previously available algorithms using a testbed of images. The comparison demonstrated that our algorithm is not only more efficient but also provides a rank ordering of images that consistently matches with the expert's expected rank ordering. (10 Refs)

Subfile: C

Descriptors: image matching; query processing; visual databases

Identifiers: image retrieval; spatial similarity; similarity-based retrieval; image database applications; symbolic image; logical representation; spatial-orientation graph; algorithm; query images; retrieval quality

Class Codes: C6160S (Spatial and pictorial databases); C5260B (Computer vision and image processing techniques); C4240 (Programming and algorithm theory)

Copyright 1995, IEE

18/5/23 (Item 9 from file: 2)

DIALOG(R) File 2:INSPEC

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02274306 INSPEC Abstract Number: B84038074, C84031705

**Title: The integration of a data base system into a computer network for the evaluation of picture sequences**

Author(s): Benn, W.; Radig, B.

Author Affiliation: Fachbereich Informatik, Univ. Hamburg, Hamburg, West Germany

Journal: VDE Fachberichte vol.35 p.209-14

Publication Date: 1983 Country of Publication: West Germany

CODEN: VDEFAH ISSN: 0340-4161

Conference Title: Mustererkennung 1983. Vortrage des 5. DAGM Symposiums (Proceedings of the 5th DAGM Symposium on Pattern Recognition 1983)

Conference Date: 11-13 Oct. 1983 Conference Location: Karlsruhe, West Germany

Language: German Document Type: Conference Paper (PA); Journal Paper

'(JP)

Treatment: Applications (A); Practical (P).

Abstract: If pictures or sequences of pictures are to be interpreted, some means of obtaining a symbolic description of the tone or colour of pictures must be the basis of such a method of interpretation. Such symbolic descriptions can be formalised to **indicate** the properties of the picture symbols or to **indicate** relationships between picture symbols. The interpretation of **picture** sequences involves **two** essential processes: the grouping of picture symbols to describe objects and the production of correspondence **relationships**, between the **symbolic** descriptions of a number of pictures in a **sequence**. The amount of data required to evaluate picture sequence is, however, so large that it can only be systematically managed with some type of 'background' storage. The author, therefore, discusses the problems involved in the first stage in achieving; a data base system for pictures, the special purpose of which will be to make available, to the user, picture descriptive relationships which will enable him to have access to any picture he requires and, also, to help him in the analysis of pictures by means of relationships stored in the data base. (10 Refs)

Subfile: B C

Descriptors: computer networks; computerised picture processing

Identifiers: data base system; computer network; picture sequences; symbolic description; tone; colour; interpretation; picture symbols; picture descriptive relationships

Class Codes: B6140C (Optical information processing); C7410F (Communications)

18/5/24 (Item 1 from file: 94)

DIALOG(R) File 94:JICST-EPlus

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03627754 JICST ACCESSION NUMBER: 98A0441124 FILE SEGMENT: JICST-E

**Phonemic paraphasia in aphasic patients: effect of bigram frequency .**

WATANABE YOSHIHIRO (1); KAKEHI KAZUHIKO (1); OKADA HISASHI (2)

(1) Nagoya Univ.; (2) Nagoya National Hospital

Nippon Onkyo Gakkai Kenkyu Happyokai Koen Ronbunshu(Reports of the Meeting. the Acoustical Society of Japan), 1998, VOL.1998,shunki 1, PAGE.363-364, FIG.2, TBL.1, REF.6

JOURNAL NUMBER: G0381BAT ISSN NO: 1340-3168

UNIVERSAL DECIMAL CLASSIFICATION: 616-073:612-087 591.126.05:591.422

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

ARTICLE TYPE: Short Communication

MEDIA TYPE: Printed Publication

DESCRIPTORS: mogilalia person; phoneme(vocal); error(mistake); phonation; phoneme(morpheme); frequency(statistics); brain disease

BROADER DESCRIPTORS: psychosomatic handicapped person; human(sociology); morpheme; degree; central nervous system disease; nervous system disease; disease

CLASSIFICATION CODE(S): EL03020C; EJ14000M



Set	Items	Description
S1	7066174	ESTIMAT? OR DETERMIN? OR MEASURE? OR QUANTIF? OR ASSESS? OR BEST() GUESS OR DECID? OR RESOLV? OR ASCERTAIN OR INDICATE?
S2	1339	(SEMANTIC OR SYMBOLIC) (2N) (CORRELATION? OR RELATION? OR CONNECTION? OR INTERCONNECTION? OR LINK? OR LINKAGE? OR RELATIONSHIP?)
S3	134755	(TWO OR COUPLE OR PAIR OR DUO OR DUAL OR DOUBLE) (2N) (IMAG- E? ? OR REPRESENTATION? OR PLAN? ? OR DIAGRAM? ? OR SCHEMA OR SCHEMATIZATION OR BLUEPRINT? OR CHART? ? OR PICTURE? ? OR LAY- OUT)
S4	0	BIGRAM() FREQUENCY
S5	20563	(SEARCH? OR QUEST? OR PURSU? OR SEEK? OR QUER?) (2N) SESSION?
S6	80	(MULTIPL? OR VARIOUS OR SEVERAL OR MANY OR PLURAL? OR NUME- ROUS) (2W) S5
S7	0	UNIGRAM() FREQUENCY
S8	0	S1 (S) S2 (S) S3 (S) S6
S9	0	S1 (S) S2 (S) S5
S10	2	S1 (S) S2 (S) S3
S11	2	S10 NOT PY>2002
S12	1	S10 NOT PD>20020211
File 15:ABI/Inform(R) 1971-2004/May 17		
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File 647:CMP Computer Fulltext 1988-2004/May W2		
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File 674:Computer News Fulltext 1989-2004/May W1		
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File 613:PR Newswire 1999-2004/May 17		
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File 16:Gale Group PROMT(R) 1990-2004/May 17		
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File 160:Gale Group PROMT(R) 1972-1989		
(c) 1999 The Gale Group		
File 553:Wilson Bus. Abs. FullText 1982-2004/May		
(c) 2004 The HW Wilson Co		

12/5,K/1 (Item 1 from file: 15)  
DIALOG(R)File 15:ABI/Inform(R)  
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01215540 98-64935

**Effect of animation in enhancing descriptive and procedural texts in a multimedia learning environment**

Large, Andrew; Beheshti, Jamshid; Breuleux, Alain; Renaud, Andre.  
Journal of the American Society for Information Science v47n6 PP: 437-448  
Jun 1996 CODEN: AISJB6 ISSN: 0002-8231 JRNL CODE: ASI  
DOC TYPE: Journal article LANGUAGE: English LENGTH: 12 Pages  
SPECIAL FEATURE: Charts Graphs References

ABSTRACT: The third and final phase of a research project to investigate the role of animation in enhancing recall and comprehension of text by grade 6 primary school students is reported. This phase had three objectives: 1. to **determine** whether a complex description text is enhanced by animation so long as the animation exhibits close **semantic links** with the text, 2. to explore the importance of captions in linking an animation with a text so as to increase comprehension of that text, and 3. to investigate the relationship between students' spatial skills and their ability to recall and comprehend a text enhanced with still images and animation. A descriptive text on the structure and functions of the heart from Compton's Multimedia Encyclopedia was linked to a still **image** of and **two** animation sequences developed by the research team and which were both more extensive and more completely integrated semantically with the text than in the original Compton's version.

DESCRIPTORS: Cartoons; Multimedia computer applications; Middle school students; Reading; Learning; Library science; Statistical analysis; Studies

CLASSIFICATION CODES: 5240 (CN=Software & systems); 8306 (CN=Schools & educational services); 9130 (CN=Experimental/Theoretical)

...ABSTRACT: of text by grade 6 primary school students is reported. This phase had three objectives: 1. to **determine** whether a complex description text is enhanced by animation so long as the animation exhibits close **semantic links** with the text, 2. to explore the importance of captions in linking an animation with a text...

... the structure and functions of the heart from Compton's Multimedia Encyclopedia was linked to a still **image** of and **two** animation sequences developed by the research team and which were both more extensive and more completely integrated...

Set	Items	Description
S1	1155704	ESTIMAT? OR DETERMIN? OR MEASURE? OR QUANTIF? OR ASSESS? OR BEST() GUESS OR DECID? OR RESOLV? OR ASCERTAIN OR INDICATE?
S2	609	(SEMANTIC OR SYMBOLIC) (2N) (CORRELATION? OR RELATION? OR CO- NNECTION? OR INTERCONNECTION? OR LINK? OR LINKAGE? OR RELATIO- NSHIP?)
S3	58644	(TWO OR COUPLE OR PAIR OR DUO OR DUAL OR DOUBLE) (2N) ( IMAG- E? ? OR REPRESENTATION? OR PLAN? ? OR DIAGRAM? ? OR SCHEMA OR SCHEMATIZATION OR BLUEPRINT? OR CHART? ? OR PICTURE? ? OR LAY- OUT)
S4	3	BIGRAM() FREQUENCY
S5	509	(SEARCH? OR QUEST? OR PURSU? OR SEEK? OR QUER?) (2N) SESSION?
S6	11	(MULTIPL? OR VARIOUS OR SEVERAL OR MANY OR PLURAL? OR NUME- ROUS) (2W) S5
S7	1	UNIGRAM() FREQUENCY
S8	0	S1 (S) S2 (S) S3 (S) S5
S9	177	S1 (S) S2
S10	4	S9 (S) S3
S11	0	S3 (S) S6
S12	4	S3 (S) S5
S13	11	S4 OR S7 OR S10 OR S12
S14	39	S1 (S) S2 (S) (IMAGE? ? OR REPRESENTATION? OR DIABRAM? ? OR SCHEMA OR SCHEMATIZATION OR BLUEPRINT? OR CHART? ? OR PICTUR- E? ? OR LAYOUT)
S15	0	S14 (S) S6
S16	0	S14 AND S4
S17	31	S14 AND IC=G06F?
S18	0	S17 (S) S5
S19	28	S17 NOT S13

File 348:EUROPEAN PATENTS 1978-2004/May W01

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File 349:PCT FULLTEXT 1979-2002/UB=20040513,UT=20040506

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13/5,K/1 (Item 1 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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00983536

Recording medium of character data of full text and character string  
collating apparatus

Aufzeichnungsmedium von Volltext-Zeichendaten und Vergleichsgerät von  
Zeichenreihen

Medium d'enregistrement de donnees de caracteres plein texte et dispositif  
de comparaison de chaines de caracteres

PATENT ASSIGNEE:

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068-0027, (JP)

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PATENT (CC, No, Kind, Date): EP 890912 A2 990113 (Basic)

APPLICATION (CC, No, Date): EP 98112850 980710;

PRIORITY (CC, No, Date): JP 97186329 970711; JP 984535 980113; JP 984556  
980113

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: G06F-017/30;

ABSTRACT EP 890912 A2

All two-character chains including two general characters and all  
three-character chains including one special character between two  
general characters are detected from a registration character string in  
which a large number of special characters not having any meaning are  
frequently arranged, or all two-character chains including two general or  
symbolic characters are detected from a converted registration character  
string produced by changing each special character of the registration  
character string to one type of symbolic character determined in  
correspondence to one general character adjacent to the special  
character. Also, occurrence frequencies of the general or symbolic  
characters of each chain are counted and stored in a recording medium  
with the registration character chains. When a retrieval character chain  
is input, occurrence frequencies of particular character chains  
corresponding to all retrieval character chains detected from the  
retrieval character string in the same manner are read out from the  
recording medium and are collated with each other, and a particular  
character string agreeing with the retrieval character chain is retrieved  
from the registration character string. Because an occurrence frequency  
of any special character is not counted or the special characters are  
changed to various types of symbolic characters, a recording area  
required for the occurrence frequencies of the registration character  
chains can be reduced.

ABSTRACT WORD COUNT: 213

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 990113 A2 Published application (A1with Search Report  
;A2without Search Report)

Examination: 990113 A2 Date of filing of request for examination:  
980710

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9902	30895
SPEC A	(English)	9902	74499
Total word count - document A			105394
Total word count - document B			0
Total word count - documents A + B			105394

...SPECIFICATION pair of occurrence frequencies of the fore general character and the rear general character of each general **two**-character chain recorded in the character chain recording region as an occurrence frequency set, recording an occurrence...in the retrieval character string is converted into a type of symbolic character according to the general- **symbolic** character type **relationship** in the same manner as the conversion of the special characters arranged in the registration character string...

...chains of the series of particular two-character chain types arranged in the particular chain order is **determined** by collating a plurality of particular position numbers of the particular registration two-character chains with each...character arranged in the retrieval character string is converted into two symbolic characters according to the general- **symbolic** character type **relationship** in the same manner as the conversion of each special character arranged in the registration character string...

...chains of the series of particular two-character chain types arranged in the particular chain order is **determined** by collating a plurality of particular position numbers of the particular registration two-character chains with each...type of the general character "E" placed just after the special character. Fig. 7B shows a general- **symbolic** character type **relationship**. For example, the special character is replaced with a symbolic character "F(circumflex)" in cases where a...string, converting each detected special character into a third symbolic character determined according to the same general- **symbolic** character type **relationship** to produce a converted retrieval character string;

a retrieval two-character chain detecting unit 64 for detecting...a converted registration character string "AB--CDD(circumflex)E(circumflex)EF--GH". Fig. 9B shows a general- **symbolic** character type **relationship**. For example, in cases where one special character "ae" is placed between a general character "A" and...

...AA(circumflex)Cg(circumflex)Cg" or "CgCg(circumflex)A(circumflex)A". The symbolic character "A(circumflex)" is **determined** according to the character "A", and the symbol "Cg(circumflex)" **indicates** a symbolic character **determined** according to the arbitrary general character "Cg" such as "A", "B",-- or "Z". Also, in cases where...

...circumflex)Cg(circumflex)Cg" or "CgCg(circumflex)B(circumflex)B" by using the symbolic character "B(circumflex)" **determined** according to the character "B".

Thereafter, in the detecting unit 62, a plurality of registration two-character...

13/5,K/2 (Item 2 from file: 348)  
 DIALOG(R) File 348:EUROPEAN PATENTS  
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00361109

Method for part-of-speech determination and usage.

Verfahren zur Bestimmung von Textteilen und Verwendung.

Methode pour la détermination des éléments de langage et utilisation.

PATENT ASSIGNEE:

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Intellectual Property Division 5 Mornington Road, Woodford Green Essex  
IG8 OTU, (GB)

PATENT (CC, No, Kind, Date): EP 327266 A2 890809 (Basic)  
EP 327266 A3 920102  
EP 327266 B1 950830

APPLICATION (CC, No, Date): EP 89300790 890127;

PRIORITY (CC, No, Date): US 152740 880205

DESIGNATED STATES: DE; ES; FR; GB; IT; NL; SE

INTERNATIONAL PATENT CLASS: G06F-017/20;

CITED REFERENCES (EP A):

ICAME NEWS vol. 7, 1983,  
LANCASTER, GB pages 13 - 33; G. LEECH ET. AL.: 'The automatic tagging of  
the LOB corpus'  
EUROPEAN CONFERENCE ON SPEECH TECHNOLOGY vol. 1, September 1987,  
EDINBURGH, GB pages 389 - 392; & E. VIVALDA: 'Contextual syntactic  
analysis for text-to-speech conversion'  
ICASSP 85 PROCEEDINGS vol. 4, March 1985,  
FLORIDA, US pages 1577 - 1580; & B. MERIALDO: 'Probabilistic  
grammar for phonetic to french transcription'  
PROCEEDINGS OF THE SPRING JOINT COMPUTER CONFERENCE, ATLANTIC  
CITY, N.J., US 30 April 1968, WASHINGTON, US pages 339 - 344; J. ALLAN:  
'Machine-to-man communication by speech Part II: Synthesis of prosodic  
features of speech by rule';

ABSTRACT EP 327266 A2

There are disclosed methods and applications for determination of parts  
of speech (part-of-speech tagging) and noun phrase parsing for text or  
other non-verbal record of a communication. The part-of-speech tagging  
method optimizes the product of individual word lexical probabilities and  
normalized three-word contextual probabilities. Normalization involves  
dividing by contained two-word contextual probabilities. The method for  
noun phrase parsing involves optimizing the choices of, typically  
non-recursive, noun phrases by considering all possible beginnings and  
endings thereof, preferably based on the output of the part-of-speech  
tagging method. The disclosed applications include text-to-speech  
synthesis and text searching and editing, among a broader range of  
possible applications.

ABSTRACT WORD COUNT: 107

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 890809 A2 Published application (Alwith Search Report  
;A2without Search Report)  
Search Report: 920102 A3 Separate publication of the European or  
International search report  
Examination: 920819 A2 Date of filing of request for examination:  
920624  
Examination: 940427 A2 Date of despatch of first examination report:  
940311  
\*Assignee: 940622 A2 Applicant (name, address) (change)  
Grant: 950830 B1 Granted patent  
Oppn None: 960821 B1 No opposition filed

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A	(English)	EPABF1	666
CLAIMS B	(English)	EPAB95	773
CLAIMS B	(German)	EPAB95	704
CLAIMS B	(French)	EPAB95	853
SPEC A	(English)	EPABF1	4593
SPEC B	(English)	EPAB95	5007

Total word count - document A 5259

Total word count - document B 7337

Total word count - documents A + B 12596

...SPECIFICATION of speech X given the succeeding parts of speech Y and Z,  
already determined, divided by the " **bigram** " **frequency** of observing  
part of speech Y given part of speech Z. The latter two data can be...

...SPECIFICATION of speech X, given the succeeding parts of speech Y and Z, already determined, divided by the " **bigram** " **frequency** of observing part of speech Y given part of speech Z. The latter two data can be...

...CLAIMS all parts of speech, and  
the contextual probability is estimated by dividing the trigram frequency by the **bigram frequency**, where  
the trigram frequency is the frequency of occurrence of the particular part of speech in sequence with the two following parts of speech, as already determined for the two following words, and  
the **bigram frequency** is the frequency of occurrence of the particular part of speech of the following word in sequence...

...CLAIMS all parts of speech, and  
the contextual probability is estimated by dividing the trigram frequency by the **bigram frequency**, where the trigram frequency is the frequency of occurrence of the particular part of speech in sequence with the two following parts of speech, as already determined for the two following words, and the **bigram frequency** is the frequency of occurrence of the particular part of speech of the following word in sequence...

13/5,K/3 (Item 1 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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01030705 \*\*Image available\*\*

SYSTEM AND METHOD FOR AUTONOMOUSLY GENERATING HETEROGENEOUS DATA SOURCE  
INTEROPERABILITY BRIDGES BASED ON SEMANTIC MODELING DERIVED FROM SELF  
ADAPTING ONTOLOGY

SYSTEME ET PROCEDE POUR GENERER DE MANIERE AUTONOME DES PONTS  
D'INTEROPERABILITE ENTRE DES SOURCES DE DONNEES HETEROGENES SUR LA BASE  
D'UNE MODELISATION SEMANTIQUE DERIVEE D'UNE ONTOLOGIE AUTO-ADAPTATIVE

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200360751 A1 20030724 (WO 0360751)

Application: WO 2002US41189 20021224 (PCT/WO US0241189)

Priority Application: US 2001342098 20011226; US 2002426761 20021115; US  
2002427395 20021118; US 2002329153 20021223

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU  
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO  
RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SI SK  
TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/00

Publication Language: English

Filing Language: English

Fulltext Availability:  
Detailed Description  
Claims  
Fulltext Word Count: 22577

#### English Abstract

A system, including software components, that efficiently and dynamically analyzes changes to data sources, including application programs, within an integration environment and simultaneously re-codes dynamic adapters between the data sources is disclosed. The system also monitors at least two of said data sources to detect similarities (3) within the data structures of said data sources and generates new dynamic adapters to integrate said at least two of said data sources. The system also provides real time error validation of dynamic adapters as well as performance optimization of newly created dynamic adapters that have been generated (5) under changing environmental conditions.

#### French Abstract

L'invention porte sur un systeme comprenant des composants logiciels et qui analyse de maniere puissante et dynamique des changements affectant des sources de donnees, y compris des programmes d'application, dans un environnement d'integration et qui recode simultanement des adaptateurs dynamiques entre les sources de donnees. Le systeme surveille egalement au moins deux des sources de donnees considerees pour detecter des similitudes (3) dans les structures de donnees de ces sources de donnees et genere de nouveaux adaptateurs dynamiques pour integrer au moins deux des sources de donnees considerees. Le systeme assure egalement un controle d'erreur en temps reel des adaptateurs dynamiques, ainsi que l'optimisation de puissance des adaptateurs dynamiques recemment crees qui ont ete generes (5) dans des conditions d'environnement evolutif.

Legal Status (Type, Date, Text)...  
Publication 20030724 A1 With international search report.  
Examination 20031030 Request for preliminary examination prior to end of 19th month from priority date

Fulltext Availability:  
Claims

#### Claim

... between two data sources, a process for developing dynamic adapters including the steps of: before an integration plan between said two data sources has been generated, an App2App Similarity Mapper determining the similarities between said two data sources and informing a Plannersoftware component to generate a new plan...Common Ontology library, the process comprising the steps of:  
of:  
monitoring each of said data sources by an **Assessment** Micro Agent including a Schema Manager;  
said **Assessment** Micro Agent creating an inventory of the data structures and functionalities of said data sources and making said inventory available to predetermined  
1 ones of said other components of said system;  
said **Assessment** Micro Agent detecting a change in either of said data sources and notifying at least some of...devices of claim 123 where said process includes the further step of the Schema Manager of said **Assessment** Micro Agent reading the data structure stored in a data source to produce a schema that is...more processor readable storage devices of claim 123 where said process includes the further step of the **Assessment** Micro Agent, in response to a change in a monitored data source, detecting alterations including new information...the process comprising the steps of:  
converting the schema obtained from the Schema Manager component of the **Assessment** Micro Agent into a language compatible to the Common Ontology; mapping schema element identifiers to a WordNet...to ontology mapping for each data source being



mapped by evaluating the mathematical probabilities of lexical and  
**semantic relationships** between schema entities and ontology concepts;  
1 0 **determining** lexical closeness between the data source ontology and  
1 1 Common Ontology concepts using synonym relationships;  
1 2 **determining** mathematical closeness of **semantic relationships** in  
the form of  
1 3 hypernyms; and  
**determining** confidence factors based on the ...process includes the  
further steps of:  
comparing the data source ontologies of the monitored data sources to  
**determine** common concepts; ...  
mapping a data source ontology to another data source ontology using  
synonym and hypernym relationships...

...sample of data element values from each said data sources and  
comparing said data element-values to **determine** mathematical  
closeness;  
validating expected data values for said data source ontology mappings;  
1 0 composing and decomposing **semantic relationships** between target  
and  
1 1 source data source ontology elements; and  
1 2 uniting semantically similar schema...between changed data sources,  
said process for generating dynamic  
adapters including the steps of:  
after an integration **plan** between two data sources has been  
generated, an **Assessment** Micro Agent **determining** that one of said  
data source's data structure has changed and, in response to said  
detecting...to ontology mapping for each data source being  
mapped by evaluating the mathematical probabilities of lexical and  
**semantic relationships**  
between schema entities and ontology concepts;  
**determining** lexical closeness between the data source ontology and  
Common Ontology concepts using synonym relationships;  
1 1 **determining** mathematical closeness of **semantic relationships** in  
the form of  
hypernyms;  
**determining** confidence factors based on the mathematical probability of  
said data source ontology and said Common Ontology being...

...process includes the further steps of:  
comparing the data source ontologies of the monitored data sources to  
**determine** common concepts;  
mapping a data source ontology to another data source ontology using  
synonym and hypernym relationships comparing said data element values to  
**determine** mathematical closeness;  
validating expected data values for said data source ontology mappings;  
1 0 composing and decomposing **semantic relationships** between target  
and  
1 1 source data source ontology elements; and  
1 2 uniting semantically similar schema steps of:  
before an integration **plan** between said two data sources has been  
generated, an App2App Similarity Mapper **determining** the similarities  
between said two data sources and informing a Planner software component  
to generate a new...processes. 154. A process of managing revision in a  
data source including the steps of:  
connecting an **Assessment** Micro Agent to a data source;  
using the Schema Manager, extracting information about the data source;  
using...

13/5,K/4 (Item 2 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00963611 \*\*Image available\*\*  
EXTENDED WEB ENABLED MULTI-FEATURED BUSINESS TO BUSINESS COMPUTER SYSTEM

**FOR RENTAL VEHICLE SERVICES  
SYSTEME INFORMATIQUE INTERENTREPRISES A ELEMENTS MULTIPLES A ACCES INTERNET  
POUR SERVICES DE LOCATION DE VEHICULES**

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**Legal Representative:**

HAFERKAMP Richard E (et al) (agent), Howell & Haferkamp, L.C., Suite  
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**Patent and Priority Information (Country, Number, Date):**

Patent: WO 200297700 A2 20021205 (WO 0297700)  
Application: WO 2001US51431 20011019 (PCT/WO US0151431)  
Priority Application: US 2000694050 20001020

**Parent Application/Grant:**

Related by Continuation to: US 2000694050 20001020 (CIP)

**Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU**

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU  
SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

**Main International Patent Class: G06F-017/60**

Publication Language: English

Filing Language: English

**Fulltext Availability:**

Detailed Description

Claims

Fulltext Word Count: 237932

English Abstract

**French Abstract**

La présente invention concerne un système informatique de transaction entre entreprises qui dans un mode de réalisation préféré est destiné à fournir des services de location de véhicules pour des utilisateurs à demande élevée comportant un portail de réseau Internet grâce auquel l'utilisateur à demande élevée peut accéder à une pluralité de fournisseurs de services comportant un réseau informatique d'entreprise intégré pour au moins un fournisseur de services de location de véhicules. Le réseau informatique de fournisseur de services de location de véhicules est configuré pour l'interconnexion d'une pluralité de succursales de diversité géographique, présentant le catalogue de leurs véhicules de location disponibles et des programmes les concernant ainsi que pour la gestion de toutes les données de transaction concernant son entreprise. Le portail de réseau Internet permet une connectivité et une transférabilité universelles pour une association d'entreprises à plusieurs niveaux qui placent régulièrement des demandes élevées d'achat de location avec son associé commercial et également les autres

fournisseurs de services qui peuvent ou non avoir le meme systeme et logiciel informatique d'entreprise integre. L'utilisation du procede et de l'appareil de la presente invention permet de placer, de grands volumes de transactions de location, de les controler, de les modifier en cours d'operation, et de les conclure avec des operations de comptabilite financiere et paiement pratiquement sans intervention humaine.

Legal Status (Type, Date, Text)

Publication 20021205 A2 Without international search report and to be republished upon receipt of that report.

Declaration 20030220 Late publication under Article 17.2a

Republication 20030220 A2 With declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority.

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DIALOG(R) File 349:PCT FULLTEXT  
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00806389

**SCHEDULING AND PLANNING BEFORE AND PROACTIVE MANAGEMENT DURING MAINTENANCE AND SERVICE IN A NETWORK-BASED SUPPLY CHAIN ENVIRONMENT**  
**PROGRAMMATION ET PLANIFICATION ANTICIPEE, ET GESTION PROACTIVE AU COURS DE LA MAINTENANCE ET DE L'ENTRETIEN D'UN ENVIRONNEMENT DU TYPE CHAINE D'APPROVISIONNEMENT RESEAUTE**

Patent Applicant/Assignee:

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Inventor(s):

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200139082 A2 20010531 (WO 0139082)

Application: WO 2000US32228 20001122 (PCT/WO US0032228)

Priority Application: US 99447625 19991122; US 99444889 19991122

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MD

MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ

VN YU ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/16

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description . . . . .

Claims

Fulltext Word Count: 152479

English Abstract

French Abstract

L'invention concerne un systeme, un procede, et un article manufacture de gestion proactive mis en oeuvre au cours de la maintenance et de l'entretien d'un environnement du type chaine d'approvisionnement reseautee. Les appels telephoniques, les donnees et autres informations multimedia sont routes via un reseau assurant le transfert des informations via Internet au moyen d'informations de routage telephonique et d'informations d'adresse de protocole Internet. Ledit reseau comprend un gestionnaire de seuil proactif qui avertit a l'avance les fournisseurs d'une rupture de contrat imminente. Ledit gestionnaire de seuil proactif

envoie une alarme au fournisseur de services lorsque le niveau de service du moment n'atteint plus le niveau de service determine dans le contrat en termes de maintien d'un certain niveau de service.

Legal Status (Type, Date, Text)

Publication 20010531 A2 Without international search report and to be republished upon receipt of that report.  
Examination 20010927 Request for preliminary examination prior to end of 19th month from priority date  
Declaration 20020103 Late publication under Article 17.2a  
Republication 20020103 A2 With declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority.

Fulltext Availability:

Detailed Description

Detailed Description

... a chart that can be utilized to determine whether to use Netcentric technology; Figure 88 is a chart that can be utilized to determine whether to use Client Server technology; Figure 89 is a chart...user may be permitted to customize the format of the display catalog for his or her particular session, or the customizations may be saved so that the user's personalized settings are used each time...

13/5,K/6 (Item 4 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00806383

COLLABORATIVE CAPACITY PLANNING AND REVERSE INVENTORY MANAGEMENT DURING DEMAND AND SUPPLY PLANNING IN A NETWORK-BASED SUPPLY CHAIN ENVIRONMENT AND METHOD THEREOF

PLANIFICATION EN COLLABORATION DES CAPACITES ET GESTION ANTICIPEE DES STOCKS LORS DE LA PLANIFICATION DE L'OFFRE ET DE LA DEMANDE DANS UN ENVIRONNEMENT DE CHAINE D'APPROVISIONNEMENT FONDEE SUR LE RESEAU ET PROCEDE ASSOCIE

Patent Applicant/Assignee:

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Inventor(s):

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200139029 A2 20010531 (WO 0139029)

Application: WO 2000US32309 20001122 (PCT/WO US0032309)

Priority Application: US 99444655 19991122; US 99444886 19991122

Designated States: AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE

DK DM DZ EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL

TJ TM TR TT TZ UA UG UZ VN YU ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SI SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TM

Main International Patent Class: G06F-017/60

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Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 157840

English Abstract

French Abstract

Legal Status (Type, Date, Text)

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republished upon receipt of that report. . . .  
Examination 20011206 Request for preliminary examination prior to end of  
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Declaration 20030103 Late publication under Article 17.2a  
Republication 20030103 A2 With declaration under Article 17(2)(a); without  
abstract; title not checked by the International  
Searching Authority.

Fulltext Availability:  
Detailed Description

Detailed Description

... order, is generally handled in an organized 5 manner using layered  
communication architectures. Such architectures address the two  
portions of the communications problem, one being that the delivery of  
data by an end user to ...the other being that the delivered data must  
be recognizable and in proper form for use. These two portions are  
handled by protocols, or standard conventions for communication  
intelligently, the first by network protocols and...

...and network layers, and the other four providing services to the end  
user by means of transport, session, presentation, and application  
layers, from lowest to highest layer.

X.25 is an interface organized as a...of, and/or implements a negotiation  
process between, two or more sets of control information submitted by  
two or more parties. WAF also accommodates a semiautomated process  
during which one or more WAF participants directly...

13/5,K/7 (Item 5 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00802534

ANY-TO-ANY COMPONENT COMPUTING SYSTEM  
SYSTEME INFORMATIQUE A COMPOSANTS TOUTE CATEGORIE

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200135216 A2-A3 20010517 (WO 0135216)  
Application: WO 2000US31231 20001113 (PCT/WO US0031231)  
Priority Application: US 99164884 19991112

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ  
DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG  
SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

{EA) AM AZ BY KG KZ MD RU TJ TM  
Main International Patent Class: G06F-009/44  
International Patent Class: G06F-017/22  
Publication Language: English  
Filing Language: English  
Fulltext Availability:  
Detailed Description  
Claims  
Fulltext Word Count: 275671

#### English Abstract

A universal data and software structure and method for an Any-to-Any computing machine in which any number of any components can be related to any number of any other components in a manner that is not intrinsically hierarchical and is intrinsically unlimited. The structure and method includes a Concept Hierarchy; each concept or assembly of concepts is uniquely identified and assigned a number in a Numbers Concept Language or uniquely identified in a Non-numbers Concept Language. Each Component or assembly of Components is intrinsically related to all other data items that contain common or related components.

#### French Abstract

L'invention concerne une structure de donnees et de logiciel universelle ainsi qu'un procede de machine informatique toute categorie dans laquelle des composants, quels qu'ils soient et quel que soit leur nombre, peuvent etre rattaches a d'autres composants, quels qu'ils soient et quel que soit leur nombre, d'une maniere intrinsequelement non hierarchisee et intrinsequelement illimitree. La structure et le procede comportent une hierarchie conceptuelle; chaque concept ou ensemble de concepts est identifie de maniere unique et recoit un numero dans un langage conceptuel de nombres ou dans un langage conceptuel de non-nombres. Chaque composant ou ensemble de composants est intrinsequelement rattache a tous les autres elements de donnees qui contiennent des composants communs ou associes.

#### Legal Status (Type, Date, Text)

Publication 20010517 A2 Without international search report and to be republished upon receipt of that report.  
Search Rpt 20020808 Late publication of international search report  
Republication 20020808 A3 With international search report.

#### Fulltext Availability: Claims

#### Claim

... Any-to-Any machine has a further method that enables a computer to use the recorded assembly **plan** to assemble the 'letter' on demand. Because these methods enable assembly plans to be stored and used...

...The methods of the Any-to-Any machine provide for:

179

I Creating and storing an assembly **plan** for each item. Therefore, if the name 'John Brown' is part of an item, one or more...

13/5,K/8 (Item 6 from File: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00775300

**A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR DETERMINING CAPABILITY LEVELS OF A MONITORING PROCESS AREA FOR PROCESS ASSESSMENT PURPOSES IN AN OPERATIONAL MATURITY INVESTIGATION**  
**SYSTEME, PROCEDE ET ARTICLE MANUFACTURE POUR DETERMINER LES NIVEAUX DE CAPACITE D'UNE ZONE DE PROCESSUS DE SURVEILLANCE A DES FINS D'EVALUATION DE PROCESSUS DANS UNE ETUDE DE MATURITE OPERATIONNELLE**

Patent Applicant/Assignee:

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(Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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US (Residence), US (Nationality), (Designated only for: US)  
WINN Colleen R, 11472 Fairfield Road #103, Minnetonka, MN 55305, US, US  
(Residence), US (Nationality), (Designated only for: US)

Legal Representative:

HICKMAN Paul L (et al) (agent), Oppenheimer Wolff & Donnelly LLP, 38th  
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Patent and Priority Information (Country, Number, Date):

Patent: WO 200108004 A2 20010201 (WO 0108004)  
Application: WO 2000US20280 20000726 (PCT/WO US0020280)  
Priority Application: US 99361622 19990726

Designated States: AL AM AT ~~AO~~ AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD  
MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US  
UZ VN YU ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60

Publication Language: English

Filing Language: English

Fulltext Availability: . . . . .

Detailed Description

Claims

Fulltext Word Count: 77527

English Abstract

French Abstract

L'invention concerne un système, un procédé et un article manufacturé qui permettent de déterminer les niveaux de capacité d'une zone de processus de surveillance lors de l'évaluation de la maturité d'une organisation d'opérations. En premier lieu, on définit une pluralité d'attributs de processus. Pour chacun de ces attributs, on détermine une pluralité de pratiques génériques. Ces pratiques génériques comportent notamment des pratiques de base, par exemple: vérification d'un état courant, collecte et documentation d'informations de surveillance, classification d'événements, attribution de degrés de gravité, évaluation d'impact, analyse de fautes, acheminement de fautes à corriger, mise en correspondance de types d'événements par rapport à un diagnostic prédéfini et/ou des procédures correctives, enregistrement des événements localement et/ou à distance, suppression de messages jusqu'à ce que des seuils soient atteints, affichage des informations d'état sur au moins une console en plusieurs formats et à plusieurs emplacements, émission d'ordres sur des processeurs à distance, installation et changement de filtres locaux et/ou à distance, installation et changement de programmes de seuils locaux et/ou à distance, analyse du courant de trafic et envoi de messages radiodiffusés. On calcule alors une maturité d'une organisation d'opérations sur la base, du moins en partie, de la réalisation des pratiques génériques..

Legal Status (Type, Date, Text)

Publication	20010201	A2 Without international search report and to be republished upon receipt of that report.
Examination	20011011	Request for preliminary examination prior to end of 19th month from priority date
Declaration	20011122	Late publication under Article 17.2a
Republication	20011122	A2 With declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority.

Fulltext Availability:  
Detailed Description

#### Detailed Description

... is a Generic Practice and is applicable to all processes. Service Level Management and Migration Control are two different Process Areas with different Base Practices, goals, and purposes. However, they share the same Generic Practice...everyone involved.

#### Gather Data

Data for the assessment are obtained from several sources: responses to the maturity **questionnaires**, interview **sessions**, work products, and document reviews. Documents are reviewed in order to verify compliance. Interviewing provides

13/5,K/9 (Item 7 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00498900 \*\*Image available\*\*

#### IDENTIFYING LANGUAGE AND CHARACTER SET OF DATA REPRESENTING TEXT IDENTIFICATION DE LA LANGUE ET DU JEU DE CARACTERES DE DONNEES REPRESENTANT DU TEXTE

Patent Applicant/Assignee:

MICROSOFT CORPORATION, . . . . .

Inventor(s):

POWELL Robert David,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9930252 A1 19990617

Application: WO 98US25814 19981204 (PCT/WO US9825814)

Priority Application: US 97987565 19971211

Designated States: JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: G06F-017/27

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 10058

#### English Abstract

The present invention provides a facility for identifying the unknown language of text represented by a series of data values in accordance with a character set that associates character glyphs with particular data values. The facility first generates a characterization that characterizes the series of data values in terms of the occurrence of particular data values on the series of data values. For each of a plurality of languages, the facility then retrieves a model that models the language in term of the statistical occurrence of particular data values in representative samples of text in that language. The facility then compares the retrieved models to the generated characterization of the series of data values, and identifies as the distinguished language the language whose model compares most favorably to the generated characterization of the series of data values.

#### French Abstract

La presente invention concerne une fonctionnalite permettant d'identifier la langue non connue d'un texte represente par une serie de valeurs de donnees conformement a un jeu de caracteres qui associe les glyphes de caracteres a des valeurs de donnees specifiques. La fonctionnalite genere d'abord une caracterisation qui caracterise la serie de valeurs de donnees selon l'occurrence de valeurs de donnees specifiques dans la serie de valeurs de donnees. Pour chaque langue parmi plusieurs langues, la fonctionnalite extrait alors un modele qui modelise la langue selon l'occurrence statistique de valeurs de donnees specifiques dans des echantillons representatifs de texte dans cette langue. La fonctionnalite compare ensuite les modeles extraits a la



caracterisation generee de la serie de valeurs de donnees et identifie comme langue du texte la langue dont le modele obtient les meilleurs resultats de comparaison avec la caracterisation generee de la serie de valeurs de donnees.

Fulltext Availability:  
Detailed Description

#### Detailed Description

... 1 5 facility reduces 256 source values to only 129 target values, thereby reducing storage requirements for **unigram . frequency** statistics by nearly 50%.

In step 405, the facility ~~sums~~ the one-dimensional characterization of the sample...3. This mapping reduces 256 source values to 155 target values, thereby reducing the storage requirements for **bigram frequency** statistics by over 63%.

In step 407, the facility sums the two-dimensional characterization of the sample...

...for this combination of language and character set. For example, because step 406 specifies the use of **bigram frequency** statistics, the facility constructs a two-dimensional matrix when performing step 502.

In each of its dimensions...

...of the specified length among the series of target values created in step 501. That is, where **bigram frequency** statistics are specified, the facility begins by considering the first and second target values in the series...

13/5,K/10 (Item 8 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00459165 \*\*Image available\*\*

UNIVERSAL EPISTEMOLOGICAL MACHINE (A.K.A. ANDROID)  
MACHINE EPISTEMOLOGIQUE UNIVERSELLE (ANDROIDE A.K.A.)

Patent Applicant/Assignee:

DATIG William E,

Inventor(s):

DATIG William E,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9849629 A1 19981105

Application: WO 98US8527 19980427 (PCT/WO US9808527)

Priority Application: US 97847230 19970501; US 97876378 19970616; US 9833676 19980303

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR ~~IE~~ IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: G06F-015/18

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 265553

#### English Abstract

A universal epistemological machine (U.M.) enables arbitrary synthetic forms of existence (that is, thinking machines) known as androids, which know and perceive the world as do human beings. The U.M. embodies transformations of an extended existential universe of human being, and

comprises means for transforming, representing, embodying, translating and realizing a plurality of universal forms. These universal forms comprise universal objects in the form of physical embodiments of universal knowledge structures. The U.M. comprises a plurality of epistemic instances comprising the universal objects and universal transformations of those universal objects, expressed in a universal grammar, which allows all human knowledge to be enabling media for the U.M.

#### French Abstract

Une machine epistemologique universelle (M.U.) permet de creer des formes de vie synthetiques arbitraires (c'est-a-dire des machines pensantes) connues sous le nom d'androides qui connaissent et percoivent le monde comme le font les etre humains. La M.U. integre des transformations d'un univers existentiel etendu d'etres humains et comprend des moyens permettant de transformer, représenter, integrer, traduire et realiser une pluralite de formes universelles. Ces formes universelles comprennent des objets universels se presentant sous forme de representations physiques de structures de connaissances universelles. La M.U. comprend une pluralite d'instances epistemiques comprenant ces objets universels et les transformation universelles de ces objets universels, exprimees dans une grammaire universelle qui permet a toute la connaissance humaine d'etre un support d'integration pour la M.U.

#### Fulltext Availability:

Claims

#### Claim

... real universe, and indeed of the physical universe, must then be the same form that symbolizes the **semantic** origin of all forms of language, or meaning itself, including the meanings of forms known in the... universe can be construed from the two perspectives of intrinsic and extrinsic forms, the unified theory develops **two** suitable **representations** of the causal element to reflect an emphasis on either viewpoint. When we represent the enabler's... in language, as opposed to some other real form. such as a hand motion of a non- **symbolic** nature. Though this modality of existence is taken up in greater depth in chapter five, in any...

13/5,K/11 (Item 9 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00341050

#### RELATIVE FREQUENCY-BASED WORD GAME

#### JEU DE VOCABULAIRE BASE SUR LA FREQUENCE RELATIVE

Patent Applicant/Assignee:

TURN-IT INC,  
KRANTZ Tomas,

Inventor(s):

KRANTZ Tomas,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9623562 A2 19960808

Application: WO 96IB303 19960202 (PCT/WO IB9600303)

Priority Application: US 95382888 19950202

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB

GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL

PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AZ BY

KG KZ RU TJ TM AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF

CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: A63F-009/04

Publication Language: Unknown

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6473

#### English Abstract

The present invention is directed to a word game wherein words are formed by arrangement of letters of the alphabet appearing on the faces of a set of dice wherein each letter represented and the number of times the letter is represented in the set of dice, approximates the frequency of their appearance in a corpus of words.

#### French Abstract

L'invention concerne un jeu de vocabulaire dans lequel les mots sont formes a partir des lettres de l'alphabet apparaissant sur les faces d'un ensemble de des, chaque lettre representee et le nombre de fois ou la lettre est representee dans l'ensemble de des correspondant a leur frequence d'apparition dans un corpus de mots.

#### Fulltext Availability:

Detailed Description

#### Detailed Description

... Verbal

Learning, Chicago: Lippincott; Mayzner, M.S. and M.E. Tresselt. 1965. Tables of single letters and **bigram frequency** counts for various word-length and letter-position combinations. Psychonomic Monograph Supplements, Vol. I, No. 2, pp...

19/5,K/14 (Item 14 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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00241947

**Machine translation system**  
**System zur maschinellen Übersetzung**  
**Systeme de traduction par machine**  
**PATENT ASSIGNEE:**

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Aoyama, Chiaki, 3-7-2 Shirasagi Nakano-ku, Tokyo, (JP)

**LEGAL REPRESENTATIVE:**

Lehn, Werner, Dipl.-Ing. et al (7471), Hoffmann Eitle, Patent- und  
Rechtsanwalte, Postfach 81 04 20, 81904 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 247395 A2 871202 (Basic)  
EP 247395 A3 880810  
EP 247395 B1 940216

APPLICATION (CC, No, Date): EP 87106512 870506;

PRIORITY (CC, No, Date): JP 86113716 860520

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-017/28

**CITED REFERENCES (EP A):**

FUJITSU-SCIENTIFIC & TECHNICAL JOURNAL, vol. 18, no. 1, March 1982, pages  
117-133, Kawasaki, JP; SAWAI et al.: "Knowledge representation and  
machine translation"

PATENT ABSTRACTS OF JAPAN, vol. 6, no. 121 (P-126) 999 , 6th July 1982; &  
JP-A-57 48 161 (CANON K.K.) 19-03-1982;

**ABSTRACT EP 247395 A2**

To translate Japanese having no morphological distinction between  
singular and plural forms into English having a morphological distinction  
between the two, for instance, the dictionary unit (6) includes semantic  
information indicative of the plural number, and the translation unit (5)  
syntactically and semantically translates Japanese into English as  
follows: a Japanese sentence is morphologically analyzed into basic  
morphemes by an inflection information dictionary (6a); lexical syntactic  
information of the Japanese basic morphemes are retrieved from a  
word/phrase dictionary (6b); the Japanese sentence is syntactically  
analyzed into an intermediate structure by Japanese syntactic analysis  
grammar to clarify modification relationship between two words; the  
Japanese intermediate structure is semantically transferred into an  
English intermediate structure by structure transfer grammar; a concept  
data of a noun (e.g. "book") which includes FEATURE : NUMBER = PLURAL is  
formed when the noun is modified by an adjective (e.g. "many") indicative  
of the plural number; an English sentence structure is syntactically  
generated from the intermediate structure and by English syntactic  
generation grammar; and lastly an English morphemes are generated by  
morphological generation grammar to change "book" into "books".

ABSTRACT WORD COUNT: 186

**LEGAL STATUS (Type, Pub Date, Kind, Text):**

Application: 871202 A2 Published application (A1with Search Report  
;A2without Search Report)  
Examination: 880406 A2 Date of filing of request for examination:  
880205  
Search Report: 880810 A3 Separate publication of the European or  
International search report  
Examination: 890510 A2 Date of despatch of first examination report:  
890323  
Grant: 940216 B1 Granted patent

Oppn: 950111.B1 Opposition 01/941115 Siemens Nixdorf.  
Informationssysteme AG; Heinz-Nixdorf-Ring 1;  
D-33106 Paderborn; (DE)  
(Representative:) Fuchs, Franz-Josef, Dr.-Ing.;  
Postfach 22 13 17; D-80503 Munchen; (DE)  
\*Oppn: 980415 B1 Opposition (change) 01/941115 Siemens Nixdorf  
Informationssysteme AG; Heinz-Nixdorf-Ring 1;  
D-33106 Paderborn; (DE)  
(Representative:) Epping, Wilhelm, Dr.-Ing.;  
Patentanwalt Postfach 22 13 17; 80503 Munchen;  
(DE)

Amended: 981104 B2 Maintenance of the European patent as amended  
Change: 981104 B1 International patent classification (change)  
LANGUAGE (Publication, Procedural, Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9845	449
CLAIMS B	(German)	9845	403
CLAIMS B	(French)	9845	567
SPEC B	(English)	9845	3681
Total word count - document A .... 0			
Total word count - document B 5100			
Total word count - documents A + B 5100			

INTERNATIONAL PATENT CLASS: G06F-017/28

...SPECIFICATION of a cursor to a character unit or a word unit, etc.

Fig. 3 shows an exemplary layout on a display image of the display unit 8, in which the image is divided into three, edition area, original (1st language) display area, and translation (2nd language) display area...

...In other words, the dictionary includes information indicative of "plural". Therefore, when the sentence is analyzed syntactically so that the relationship between a noun and a modifier is clarified, it is possible to determine the noun as plural...

19/5,K/15 (Item 1 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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01113565 \*\*Image available\*\*

SYSTEM AND METHOD FOR PROCESSING ELECTRONIC DOCUMENTS  
SYSTEME ET PROCEDE DE TRAITEMENT DE DOCUMENTS ELECTRONIQUES  
Patent Applicant/Assignee:

PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH, Steindamm 94, 20099  
Hamburg, DE, DE (Residence), DE (Nationality), (Designated only for:  
DE)

KONINKLIJKE PHILIPS ELECTRONICS N V, Groenewoudseweg 1, NL-5621 BA  
Eindhoven, NL, NL (Residence), NL (Nationality), (For all designated  
states except: DE US)

Patent Applicant/Inventor:

BAUER Georg, c/o Philips Intellectual Property & Standards GmbH,  
Weisshausstr. 2, 52066 Aachen, DE, DE (Residence), DE (Nationality),  
(Designated only for: US)

Legal Representative:

VOLMER Georg (agent), Philips Intellectual Property & Standards GmbH,  
Weisshausstr. 2, 52066 Aachen, DE,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200436459 A2 20040429 (WO 0436459)

Application: WO 20031B4405 20031007 (PCT/WO IB03004405)

Priority Application: DE 10248837 20021019

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU  
CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG  
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH  
PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU  
ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/30

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4112

#### English Abstract

A system and a method for processing electronic documents are described in which an input document D1 and reference data D2 are examined whether there is a content-based relation between the input document D1 and the reference data D2. For the case of a content-based relation, a type of linkage is selected from a number of predefined types of linkages in accordance with the type of content-based relation and a respective linkage between the documents is established. The invention makes it possible for the type of relation between two documents to be recognized automatically. For example, a document flow can be segmented in suitable manner and classified and also stored in an appropriately interlinked manner.

#### French Abstract

L'invention concerne un systeme et un procede de traitement de documents electroniques, dans lesquels un document d'entree D1 et des donnees de reference D2 sont examinees afin de determiner s'il existe une relation de contenu entre le document d'entree D1 et les donnees de reference D2. Dans le cas ou une telle relation existe, un type de lien est selectionne a partir d'un certain nombre de types predefinis de liens selon le type de relation de contenu, et un lien respectif est etabli entre les documents. L'invention permet de reconnaitre automatiquement le type de relation existant entre deux documents. Par exemple, un flux de documents peut etre segmente de maniere appropriee, classe et aussi stocke de maniere appropriee selon le lien etabli entre les documents.

Legal Status (Type, Date, Text)

Publication 20040429 A2 Without international search report and to be republished upon receipt of that report.

Main International Patent Class: G06F-017/30

Fulltext Availability:

Claims

#### Claim

... be a second document. The reference data may also be a group (cluster) of documents or a **representation** thereof. On the basis of the analysis a decision is made whether there is a content-based relation. Subsequently, the sort of this relation is **determined** and attempts are made to assign this to a type. For this purpose a number of possible...

...review of the book document B". A contentbased relation is a decisive factor here, which relation is **determined** by the type of linkage. Such linkage preferably has a fixed direction. An example for a cluster...

...of documents. For detennining the type of content-based relation one may then fall back on the **determined** type of document. A further embodiment of the invention provides that the input document comprises a text...

...be

elucidated with reference to the embodiments described hereinafter.

In the drawings:

Fig. 1: shows in a **symbolic representation** linkages between three documents; Fig. 2: in a **symbolic representation** elements of an

information processing system. Fig. 1 shows in a symbolic **representation** the three documents D1, D2 and D3.

In the present example the document D2 is a video...

...type "comment on". The linkage is set and points from document D1 to document D2. It thus **indicates** as content-related link between D1 and D2 that the content of D1 is a comment...

...be a second document. Similarly, the reference data may also be a cluster of documents or a **representation** thereof, respectively. If no content-based match between the input document and the reference data is found...

...linkages in a table. Moreover, the information contained in the data portion of the input document is **assessed**. The results of the search for key phrases and the additional information from the data portion of the input document are **assessed** to select a type of linkage. A linkage of the selected type of linkages is generated between...

...in the two documents is established, where n is suitably selected. A vector distance may then be **determined** which may be regarded as a parameter for content-based relation between the documents. Such techniques are...

...individual comparisons. For performance reasons, however, the document may also be compared with one or more **representations** of the cluster. Such **representations** condense common matters of the documents of the cluster. If, for example, the word frequency method defined above is worked with, a **representation** of a cluster comprises a list of terms recurring in the documents of the cluster.  
In the...

...in the 15 database (generic terms: general; special terms: special) and thus a suitable or numerical **measure** can be formed for the degree of specialization of the terms used. If, for example, it is...

...constant flow. The data flow D1 ... Dn may finally also be the result of a constant **assessment** or the result of the transmissions of various news stations. The documents D1 ... Dn are first...

...in the data memory 12. If there is a content-based relation, its type is determined, as **indicated** above and a respective linkage L is established. The currently processed document and all the linkages L...

19/5,K/25 (Item 11 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00474269 \*\*Image available\*\*

**SYSTEM FOR PROCESSING TEXTUAL INPUTS USING NATURAL LANGUAGE PROCESSING TECHNIQUES**

**SYSTEME DE TRAITEMENT DE SAISIES TEXTUELLES UTILISANT DES TECHNIQUES DE TRAITEMENT DU LANGAGE NATUREL**

Patent Applicant/Assignee:

MICROSOFT CORPORATION,

Inventor(s):

CORSTON Simon H,

DOLAN William B,

VANDERWENDE Lucy H,

BRADEN-HARDER Lisa,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9905621 A1 19990204

Application: WO 98US14883 19980717 (PCT/WO US9814883)

Priority Application: US 97898652 19970722; US 9897979 19980616

Designated States: CN JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: G06F-017/30

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 23107

#### English Abstract

A system (1480) filters documents in a document set retrieved from a document store in response to a query. The system (1480) obtains (1830) a first set of logical forms based on a selected one of the query and the documents in the document set. The system (1480) obtains a second set of logical forms based on another of the query and the documents in the document set. The system (1480) then uses natural language processing techniques to modify (1832, 1834) the first logical forms to obtain a modified set of logical forms. The system (1480) filters (1836) documents in the document set based on a predetermined relationship between the modified set of logical forms and the second set of logical forms.

#### French Abstract

L'invention concerne un systeme (1480) qui filtre des documents dans un ensemble de documents recuperes a partir d'une mise en memoire de documents suite a une requete. Le systeme (1480) obtient (1830) un premier ensemble de formes logiques tenant compte d'une des requetes choisies et des documents se trouvant dans l'ensemble de documents. Le systeme (1480) obtient un second ensemble de formes logiques tenant compte d'une autre des requetes et des documents se trouvant dans l'ensemble de documents. Le systeme (1480) utilise ensuite les techniques de traitement du langage naturel pour modifier (1832, 1834) les premieres formes logiques pour obtenir un ensemble modifie de formes logiques. Le systeme (1480) filtre (1836) les documents contenus dans l'ensemble de documents en fonction d'un rapport predetermine entre l'ensemble modifie de formes logiques et le second ensemble de formes logiques.

Main International Patent Class: G06F-017/30

Fulltext Availability:

Detailed Description

#### Detailed Description

... This

lexicon includes various classes of words, such as, e.g., prepositions, conjunctions, verbs, nouns, operators and **quantifiers** that define syntactic and semantic properties inherent in the words in an input string so that a...

...such as logical form

triples or logical form graph within a logical form, capable of portraying a **semantic relationship** ) can be precomputed, while a corresponding document is being indexed, and stored, within, e.g., a record...

19/5,K/26 (Item 12 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00474266 \*\*Image available\*\*

**APPARATUS AND METHODS FOR AN INFORMATION RETRIEVAL SYSTEM THAT EMPLOYS NATURAL LANGUAGE PROCESSING OF SEARCH RESULTS TO IMPROVE OVERALL PRECISION**

**APPAREIL ET PROCEDES POUR SYSTEME D'EXTRACTION D'INFORMATION UTILISANT LE TRAITEMENT EN LANGAGE NATUREL DES RESULTATS DE RECHERCHE POUR AMELIORER LA PRECISION GLOBALE**

Patent Applicant/Assignee:

MICROSOFT CORPORATION,

Inventor(s):



BRADEN-HARDER Lisa,  
CORSTON Simon H,  
DOLAN William B,  
VANDERWENDE Lucy H,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9905618 A1 19990204

Application: WO 98/59711 19980513 (PCT/WO US9809711)

Priority Application: US 97898652 19970722

Designated States: CN JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT  
SE

Main International Patent Class: G06F-017/30

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 20517

#### English Abstract

Apparatus and accompanying methods for an information retrieval system that utilizes natural language processing to process results retrieved by, for example, an information retrieval engine such as a conventional statistical-based search engine, in order to improve overall precision. Specifically, such a search ultimately yields a set of retrieved documents. Each such document is then subjected to natural language processing to produce a set of logical forms. Each such logical form encodes, in a word-relation-word manner, semantic relationships, particularly argument and adjunct structure, between words in a phrase. A user-supplied query is analyzed in the same manner to yield a set of corresponding logical forms therefor. Documents are ranked as a predefined function of the logical forms from the documents and the query. Specifically, the set of logical forms for the query is then compared against a set of logical forms for each of the retrieved documents in order to ascertain a match between any such logical forms in both sets. Each document that has at least one matching logical forms is heuristically scored, with each different relation for a matching logical forms being assigned a different corresponding predefined weight. The score of each such document is, e.g., a predefined function of the weights of its uniquely matching logical forms. Finally, the retained documents are ranked in order of descending score and then presented to a user in that order.

#### French Abstract

Appareils et procedes associes, pour un systeme de recherche d'information utilisant le traitement en langage naturel pour traiter les resultats extraits, par exemple, par un moteur d'extraction d'information comme un moteur de recherche a base statistique classique, afin d'ameliorer la precision globale. Ladite recherche permet notamment de produire en final un ensemble de documents extraits. Chaque document est ensuite soumis a un traitement en langue naturelle de sorte qu'un ensemble de formes logiques soit produit. Chaque forme logique code, en mode mot-relation-mot, les relations semantiques, notamment la structure d'argument et d'adjonction, entre les mots d'une phrase. Une demande formulee par l'utilisateur est analysee de la meme maniere de sorte qu'un ensemble de formes logiques correspondantes soit produit. Les documents sont classes en fonction, de maniere predeterminee, des formes logiques provenant des documents et de la demande. Specifiquement, l'ensemble de formes logiques pour la demande est ensuite compare a un ensemble de formes logiques pour chacun des documents extraits, de maniere qu'un appariement soit etabli entre chaque forme logique des deux ensembles. Chaque document qui presente au moins une forme logique appariee est evalue de maniere heuristique, un poids predefini different et correspondant different etant attribue a chaque relation differente pour une forme logique appariee. L'evaluation de chaque document est fonction, par exemple, de maniere predeterminee, des poids de ses formes logiques appariees uniques. Les documents retenus sont ensuite classes dans l'ordre decroissant puis presentes a un utilisateur dans cet ordre.

Main International Patent Class: G06F-017/30

Fulltext Availability:

Detailed Description

Detailed Description

... This lexicon includes various classes of words, such as, e.g., prepositions, conjunctions, verbs, nouns, operators and **quantifiers** that define syntactic and semantic properties inherent in the words in an input string so that a...

...such as logical form  
triples or logical form graph within a logical form, capable of portraying a **semantic relationship** ) can be precomputed, while a corresponding document is being indexed, and stored, within, e.g., a record...

19/5,K/27 (Item 13 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00358768 \*\*Image available\*\*

**COMPUTER SYSTEM FOR CREATING SEMANTIC OBJECT MODELS FROM EXISTING  
RELATIONAL DATABASE SCHEMAS**

**SYSTEME INFORMATIQUE DE CREATION DE MODELES D'OBJETS SEMANTIQUES A PARTIR  
DE SCHEMAS DE BASES DE DONNEES RELATIONNELLES EXISTANTES**

Patent Applicant/Assignee: .

WALL DATA INCORPORATED,

KROENKE David,

Inventor(s):

KROENKE David,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9641282 A1 19961219

Application: WO 96US8563 19960603 (PCT/WO US9608563)

Priority Application: US 95478377 19950607

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB  
GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ  
PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG  
AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL  
PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: G06F-017/30

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 12812

English Abstract

A computer system for creating a semantic object model from an existing relational database schema. The computer system analyzes the catalog information of the relational database schema and creates a semantic object for each table defined in the catalog. For each column defined with a table, a simple value attribute is added to the semantic object created for the table. The system then analyzes the relationship information stored in the catalog to create object link attributes that define relationships between two or more semantic objects as well as to create multivalued group attributes and multivalued, simple value attributes. If the database catalog does not include the relational information, the user is prompted to indicate related semantic objects.

French Abstract

Cette invention concerne un systeme informatique permettant la creation d'un modele d'objets semantiques a partir d'un schema de base de donnees relationnelles existante. Ce systeme informatique analyse les informations du catalogue du schema de la base de donnees relationnelles et cree un objet semantique pour chaque table definie dans le catalogue. Pour chaque colonne definie a l'interieur d'une table, on ajoute un

attribut de valeur simple a l'objet semantique cree pour cette table. Le systeme analyse alors les informations relatives aux relations et stockees dans le catalogue pour creer des attributs de liaison d'objets qui definissent les relations entre au moins deux objets semantiques ainsi que pour creer des attributs de groupes a valeurs multiples et des attributs de valeurs simples, a valeurs multiples. Si le catalogue de la base de donnees ne contient pas les informations relationnelles, l'utilisateur recoit un message lui demandant d'indiquer les objets semantiques associes.

Main International Patent Class: **G06F-017/30**

Fulltext Availability:

Claims

Claim

... causes the

central processing unit to perform the following functions:

- a) to analyze the database catalog to **determine** each relational database table defined in the existing relational database schema
- b) to create a semantic object...

...relational database table corresponding to the semantic object created;

- c) to analyze each column defined in the **relational** database and

**semantic** object created that corresponds to a column defined for the relational d) to

19/5,K/28 (Item 14 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00218709

**LINKING OF PROGRAM UNITS AT PROGRAM ACTIVATION**

**LIAISON D'UNITES DE PROGRAMME AU MOMENT DU DECLENCHEMENT DU PROGRAMME**

Patent Applicant/Assignee:

DIGITAL EQUIPMENT CORPORATION, . . . . .

Inventor(s):

MURPHY Daniel L,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9215940 A1 19920917

Application: WO 92US1839 19920304 (PCT/WO US9201839)

Priority Application: US 9123 19910307

Designated States: AT AT AU BB BE BF BG BJ BR CA CF CG CH CH CI CM CS DE DE

DK DK ES ES FI FR GA GB GB GN GR HU IT JP KP KR LK LU LU MC MG ML MN MR

MW NL NL NO PL RO RU SD SE SE SN TD TG

Main International Patent Class: **G06F-009/445**

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5145

English Abstract

An improved method for linking **images** at program activation is provided by use of a symbol vector in a sharable code **image**. The symbol vector is automatically constructed which the linker and operating system use to effect fast lookup of symbol values at program activation, thus providing flexibility similar to that of link-time binding. For each sharable **image** being constructed, the programmer provides a list of symbols which are to be made visible outside of the **image**. These symbols may be procedure names, data cells, absolute values, or any other valid use of a symbolic value. The order of this list must remain fixed from one **image** build to the next. From this list, the "symbol vector" is constructed (as by the linker) of the value of each of the identified symbols, and the symbol vector is associated with the sharable **image**. A symbol table is also associated with the sharable **image**, where each symbol has the value of its index in the symbol vector. When **resolving** references to

other **images**, the **linker** does a **symbolic** lookup in the symbol table of the target **image** and obtains the index into the target symbol vector. That index is bound into the calling **image**. Then, at program activation, the **image** activator uses the index bound into a calling **image** to obtain the current value of the symbol in the target **image**.

#### French Abstract

Procede ameliore de liaison d'images se faisant au moment du declenchement d'un programme utilisant un vecteur de symbole d'une image de code partageable. Le vecteur de symbole se construit automatiquement, ce que l'editeur de liaison et le systeme d'exploitation utilisent pour effectuer une recherche rapide des valeurs de symbole au declenchement du programme, realisant de ce fait, une souplesse semblable a celle d'une edition de liaison temporelle. Le programmeur fournit, pour chaque image partageable construite, une liste de symboles devant etre rendus visibles en dehors de l'image. Ces symboles peuvent etre des noms de procedures, des cellules de donnees, des valeurs absolues ou toute autre utilisation valable d'une valeur symbolique. L'ordre de cette liste doit rester fixe d'une image a l'autre. On construit, a partir de cette liste, le "vecteur de symboles" (comme par l'editeur de liaison) de la valeur de chacun des symboles identifies et le vecteur de symbole est associe a l'image partageable. Une table de symboles est egalement associee a l'image partageable, dans laquelle chaque symbole a la valeur de son indice dans le vecteur de symbole. Quand il resout des references a d'autres images, l'editeur de liaison effectue une recherche symbolique dans la table de symboles de l'image cible et introduit l'indice dans le vecteur de symbole de la cible. Cet indice est edite dans l'image d'appel. Ensuite, au moment du declenchement du programme, le declencheur d'image utilise l'indice edite dans l'image d'appel pour obtenir la valeur courante du symbole dans l'image cible.

Main International Patent Class: G06F-009/445

Fulltext Availability:

Detailed Description

#### English Abstract

An improved method for linking **images** at program activation is provided by use of a symbol vector in a sharable code **image**. The symbol vector is automatically constructed which the linker and operating system use to effect fast lookup...

...values at program activation, thus providing flexibility similar to that of link-time binding. For each sharable **image** being constructed, the programmer provides a list of symbols which are to be made visible outside of the **image**. These symbols may be procedure names, data cells, absolute values, or any other valid use of a symbolic value. The order of this list must remain fixed from one **image** build to the next. From this list, the "symbol vector" is constructed (as by the linker) of the value of each of the identified symbols, and the symbol vector is associated with the sharable **image**. A symbol table is also associated with the sharable **image**, where each symbol has the value of its index in the symbol vector. When **resolving** references to other **images**, the **linker** does a **symbolic** lookup in the symbol table of the target **image** and obtains the index into the target symbol vector. That index is bound into the calling **image**. Then, at program activation, the **image** activator uses the index bound into a calling **image** to obtain the current value of the symbol in the target **image**.

#### Detailed Description

... has the value of its index in the symbol vector. When resolving references to other images, the **linker** does a **symbolic** lookup in the symbol table of the target **image** and obtains the index into the target symbol vector. That index is bound into the calling **image**. Then, at program activation, the **image** activator uses the index bound into a calling **image** to obtain the current value of the symbol in the target **image**.

Because of the design of the advanced RISC 'instruction set, and in some cases because of the...ongolng entries 24 must be in the same original position. When resolving references to other images, the **linker** does a **symbolic** lookup in the symbol table 21 of the target **image**, finding an entry 22., and obtains the index into the symbol vector 20 for this target **image** I 1; that index (ordinal number) for that **image** name 1 1 is bound into the calling **image** 10 at the calling position 12. At program acdvation, the **image** activator routine uses the index bound into the calling **image** 10 to obtain the current value of the symbol in the target **image** 11, by referencing the header 23 to get the pointer to the symbol vector 20 and indexing into the symbol vector to the entry 24 which contains the actual offset into the **image** 1 1 where the procedure 13 is to be found. The symbol vector 20 does not become...

Set	Items	Description
S1	2212993	ESTIMAT? OR DETERMIN? OR MEASURE? OR QUANTIF? OR ASSESS? OR BEST() GUESS OR DECID? OR RESOLV? OR ASCERTAIN OR INDICATE?
S2	208	(SEMANTIC OR SYMBOLIC) (2N) (CORRELATION? OR RELATION? OR CONNECTION? OR INTERCONNECTION? OR LINK? OR LINKAGE? OR RELATIONSHIP?)
S3	48746	(TWO OR COUPLE OR PAIR OR DUO OR DUAL OR DOUBLE) (2N) (IMAG- E? ? OR REPRESENTATION? OR PLAN? ? OR DIAGRAM? ? OR SCHEMA OR SCHEMATIZATION OR BLUEPRINT? OR CHART? ? OR PICTURE? ? OR LAY- OUT)
S4	2	BIGRAM() FREQUENCY
S5	104	(SEARCH? OR QUEST? OR PURSU? OR SEEK? OR QUER?) (2N) SESSION?
S6	3	(MULTIPL? OR VARIOUS OR SEVERAL OR MANY OR PLURAL? OR NUME- ROUS) (2W) S5
S7	1	UNIGRAM() FREQUENCY
S8	1	S1 AND S2 AND S3 AND S5
S9	2	S1 AND S2 AND S3
S10	6	S4 OR S6 OR S7 OR S8 OR S9

File 347:JAPIO Nov 1976-2003/Dec(Updated 040402)

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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200431

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10/5/1 (Item 1 from file: 347)  
DIALOG(R) File 347:JAPIO  
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07361091 \*\*Image available\*\*  
STATISTICAL LANGUAGE MODEL FORMING SYSTEM, SPEECH RECOGNIZER AND  
STATISTICAL LANGUAGE MODEL FORMING METHOD AS WELL AS RECORDING MEDIUM

PUB. NO.: 2002-229588 [JP 2002229588 A]  
PUBLISHED: August 16, 2002 (20020816)  
INVENTOR(s): MARUTA YUZO  
ABE YOSHIHARU  
GOI HIROTAKA  
APPLICANT(s): MITSUBISHI ELECTRIC CORP  
APPL. NO.: 2001-020583 [JP 200120583]  
FILED: January 29, 2001 (20010129)  
INTL CLASS: G10L-015/18

#### ABSTRACT

PROBLEM TO BE SOLVED: To solve the problems that, if a statistical language model is formed from a language corpus 201 having an extremely high sparse characteristic, there is a tendency to inclusion of words having a high **unigram frequency** as the recognition result of speech using the same and a recognition error is liable to occur.

SOLUTION: This system is provided with word connection probability calculating means of inputting a backoff probability to a monotonously increasing function and determining the result of the computation by this function as a fresh conditional probability of a word chain in making calculation by subjecting the conditional probability of the word chain having a low appearance frequency to backoff smoothing.

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10/5/2 (Item 2 from file: 347)  
DIALOG(R) File 347:JAPIO  
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06767286 \*\*Image available\*\*  
NOTATION-READING CORRESPONDENCE DEVICE, NOTATION- READING DICTIONARY  
GENERATING METHOD, TEXT READING ARRANGING DEVICE, TEXT READING ARRANGING  
METHOD, AND RECORDING MEDIUM

PUB. NO.: 2000-353159 [JP 2000353159 A]  
PUBLISHED: December 19, 2000 (20001219)  
INVENTOR(s): MORIWAKI KUNIKO  
APPLICANT(s): NIPPON TELEG & TELEPH CORP (NTT)  
APPL. NO.: 11-165197 [JP 99165197]  
FILED: June 11, 1999 (19990611)  
INTL CLASS: G06F-017/22

#### ABSTRACT

PROBLEM TO BE SOLVED: To eliminate a deficiency of reading-arranged character **bigram frequency** data by calculating the distance between a KANJI(Chinese character) string and a reading character string by using a single-KANJI reading table and finding the correspondence between the KANJI string and the readings by the characters so that the sum of calculated distances become minimum.

SOLUTION: An inter-element distance calculating means 1 calculates an inter- constitution-element distance as the distance between the KANJI string as constitution elements of notation and the character string as constitution elements of readings by using the single-KANJI reading table wherein KANJI and a candidate for the reading of the KANJI are recorded corresponding to each other. Then a minimum distance correspondence search means 2 finds the correspondence between the KANJI string constituting the notation and the readings by the characters constituting the notation by

using a dynamic programming method so that the sum inter-constitution-  
element distances becomes minimum. Consequently, a deficiency of  
reading-arranged **bigram frequency** data can be eliminated.

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10/5/3 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX,  
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015738258 \*\*Image available\*\*  
WPI Acc No: 2003-800459/200375  
XRPX Acc No: N03-641356

Session search system for search engines, has client module updating  
search result set immediately when new data is available as long as  
search query is active, and server module terminating query when that is  
not active

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )  
Inventor: EMENS M L; KRAFT R; YIM P C  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6633867	B1	20031014	US 2000543383	A	20000405	200375 B

Priority Applications (No Type Date): US 2000543383 A 20000405

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6633867	B1	10	G06F-007/00	

Abstract (Basic): US 6633867 B1

NOVELTY - The system has a client module presenting a dynamic  
search result set to a user and a server module managing **multiple**  
active **session queries**. The client module updates the search result  
set automatically and immediately when new data is available as long as  
a search query is active, and the server module terminates the session  
query when that is no longer active.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the  
following:

(a) a computer program product for use with a search engine to  
query a dynamic data repository of the search engine when prompted by a  
session query from a user

(b) a method of querying a dynamic data repository of the search  
engine when prompted by a session query from a user.

USE - Used for querying dynamic and large data repositories, and  
indices of Internet search engine providers.

ADVANTAGE - The system enables the users to easily and conveniently  
perform a search query similar to the ad-hoc, without the need to  
subscribe or setup and manage a persistent query, and the session query  
is performed automatically, without special user intervention.

DESCRIPTION OF DRAWING(S) - The drawing shows a flow chart that  
depicts operation of a session search system.

pp; 10 DwgNo 4/4

Title Terms: SESSION; SEARCH; SYSTEM; SEARCH; ENGINE; CLIENT; MODULE;  
UPDATE; SEARCH; RESULT; SET; IMMEDIATE; NEW; DATA; AVAILABLE; LONG;  
SEARCH; QUERY; ACTIVE; SERVE; MODULE; TERMINATE; QUERY; ACTIVE

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

10/5/4 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015685576 \*\*Image available\*\*  
WPI Acc No: 2003-747765/200370



XRPX Acc No: N03-599446

Digital image retrieval method involves estimating semantic correlation between image pairs with respective bigram frequency, obtained through multiple search sessions

Patent Assignee: CHEN Z (CHEN-I); LI M (LIMM-I); WENYIN L (WENY-I); ZHANG H (ZHAN-I)

Inventor: CHEN Z; LI M; WENYIN L; ZHANG H

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030187844	A1	20031002	US 200274941	A	20020211	200370 B

Priority Applications (No Type Date): US 200274941 A 20020211

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030187844	A1		20	G06F-017/30	

Abstract (Basic): US 20030187844 A1

NOVELTY - Semantically relevant images are determined from several images received through multiple search sessions, using relevance feedback. Semantic correlation between pair of images with respective bigram frequency, is estimated.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) computer readable medium for storing image retrieval program; and

(2) computing device for image retrieval.

USE - For retrieving digital image by content-based or keyword-based technique, using statistical bigram correlation model.

ADVANTAGE - Semantic relationships between the images are captures easily. The iterative results of content based image retrieval (CBIR) system, is improved. Also performance of the system is improved.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of host computer using bigram correlation model, for image retrieval.

processor (202)  
system memory (204)  
program molecules (206)  
program data (208)  
search engine (210)  
image data (222)  
display (230)  
pp; 20 DwgNo 2/5

Title Terms: DIGITAL; IMAGE; RETRIEVAL; METHOD; ESTIMATE; CORRELATE; IMAGE; PAIR; RESPECTIVE; FREQUENCY; OBTAIN; THROUGH; MULTIPLE; SEARCH; SESSION

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

10/5/5 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015449599 \*\*Image available\*\*

WPI Acc No: 2003-511741/200348

XRPX Acc No: N03-406086

Face direction generation method for face recognition and gesture detection, involves determining quantitative face direction of face in image dependent upon rotation and tilt of face

Patent Assignee: KENT RIDGE DIGITAL LABS (KENT-N)

Inventor: MARIANI R; WU J

Number of Countries: 002 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SG 91841	A1	20021015	SG 995429	A	19991103	200348 B

US 6707933 B1 20040316 US 2000528279 A 20000317 200420  
US 20040062424 A1 20040401 US 2000528279 A 20000317 200425  
US 2003664122 A 20030917

Priority Applications (No Type Date): SG 995429 A 19991103

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
SG 91841	A1		40	G06K-009/36	
US 6707933	B1			G06K-009/00	
US 20040062424	A1			G06K-009/00	Cont of application US 2000528279

Abstract (Basic): SG 91841 A1

NOVELTY - The rotation of face in image is computed dependent upon a nose axis of face, and the tilt of face in image is computed. The quantitative face direction of face in image is **determined** dependent upon rotation and tilt of face.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) A quantitative face direction generation apparatus;
- (2) A computer readable medium storing program for generating quantitative face direction;
- (3) A facial gesture establishment method;
- (4) A facial gesture establishment apparatus;
- (5) A computer readable medium storing program for establishing facial gesture;
- (6) A visual mouse presentation method for detecting quantitative face direction;
- (7) A visual mouse presentation apparatus for detecting quantitative face directions;
- (8) A computer readable medium storing for detecting quantitative face direction;
- (9) A video conference method;
- (10) A video conference apparatus; and
- (11) A computer readable medium storing program for video conferencing.

USE - For recognizing faces from single image and for **determining** facial gestures.

ADVANTAGE - Enables fast and easy face recognition by using a single image. Enables active system to be built with the faces only in given position, prior to face recognition, so that the size of the database is reduced and the number of error and the processing time during recognition is also reduced. Provides qualitative and quantitative **measure** of the face direction and the result is displayed on the face, by drawing the **estimated** nose axis, hence easily interface with supervised learning system and allows a human to input feedback.

DESCRIPTION OF DRAWING(S) - The figure shows a **symbolic** diagram of **correlation** window corresponding to segment (x,theta) for **two** images, being a frontal case and a right rotated case at a face.  
pp; 40 DwgNo 1/9

Title Terms: FACE; DIRECTION; GENERATE; METHOD; FACE; RECOGNISE; DETECT;  
**DETERMINE**; QUANTITATIVE; FACE; DIRECTION; FACE; IMAGE; DEPEND; ROTATING;  
TILT; FACE

Derwent Class: T01; T04

International Patent Class (Main): G06K-009/00; G06K-009/36

International Patent Class (Additional): G06K-009/03; G06K-009/64

File Segment: EPI

10/5/6 (Item 4 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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013924111 \*\*Image available\*\*

WPI Acc No: 2001-408324/200143

Related WPI Acc No: 1999-540431; 2000-271691; 2000-317246; 2000-328520;  
2000-365206; 2000-365812; 2000-365821; 2000-411438; 2000-422526;

2000-482374; 2000-490708; 2000-549337; 2000-686761; 2001-283696;  
2001-432682; 2001-537686; 2002-240188  
XRPX Acc No: N01-302146

**Comparing an incoming query with query databases and providing a stored response to a chat hosting agent when a match is found for the query**

Patent Assignee: GENESYS TELECOM LAB INC (GENE-N); SHTIVELMAN Y (SHTI-I)

Inventor: SHTIVELMAN Y

Number of Countries: 092 Number of Patents: 004

**Patent Family:**

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200140997	A1	20010607	WO 2000US27982	A	20001010	200143 B
EP 1109119	A2	20010620	EP 2000123328	A	20001027	200143
AU 200080068	A	20010612	AU 200080068	A	20001010	200154
US 20020059164	A1	20020516	US 99452541	A	19991201	200237
			US 99457608	A	19991208	

Priority Applications (No Type Date): US 99457608 A 19991208; US 99452541 A 19991201

**Patent Details:**

Patent No Kind Lan Pg Main IPC Filing Notes

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Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

EP 1109119 A2 E G06F-017/60

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
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AU 200080068 A G06F-017/30 Based on patent WO 200140997

US 20020059164 A1 G06F-007/00 CIP of application US 99452541

**Abstract (Basic): WO 200140997 A1**

NOVELTY - All interactions in a chat server are recorded in a history database at a computer center and incoming queries are processed by a **multiple - session query** parser (115) for possible matches stored in a knowledge base (117). Matching queries are routed to the appropriate agent by a router application (123) and the matching queries are also displayed in a window (125) with the most accurate response being selected and sent to an editing window (127), to allow for editing.

DETAILED DESCRIPTION - AN INDEPENDENT CLAIM is included for a system for aiding agent hosts in a communication system.

USE - Auto-assisting agents participating in agent-led chat sessions.

ADVANTAGE - Quick response to many frequently asked questions.

DESCRIPTION OF DRAWING(S) - The drawing shows a communication network

Query parser (115)

Knowledge base (117)

Router application (123)

Display window (125)

Editing window (127)

pp; 42 DwgNo 4/6

Title Terms: COMPARE; INCOMING; QUERY; QUERY; STORAGE; RESPOND; AGENT; MATCH; FOUND; QUERY

Derwent Class: T01; W01

International Patent Class (Main): G06F-007/00; G06F-017/30; G06F-017/60

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